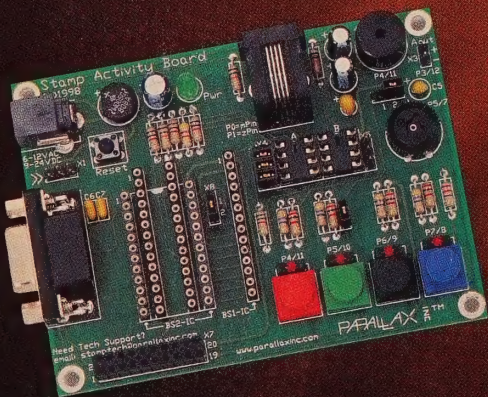
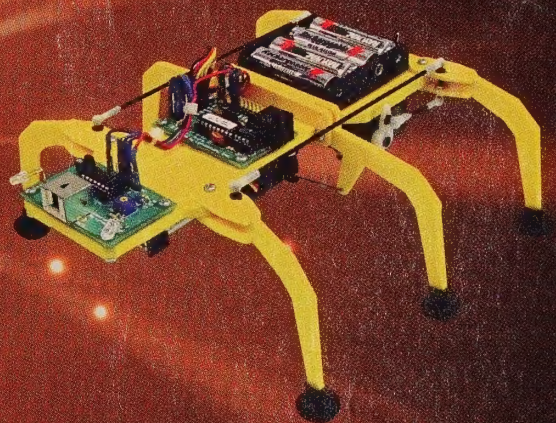


RAMSEY

ELECTRONIC KITS & TECH TOYS
LEARN, BUILD, ENJOY!

**OVER 100
GREAT NEW
PRODUCTS INSIDE...**
Kits • Video Cameras • Car Amps
Weather Stations • DMM/Scopes • PC Compatible
Software • Basic Stamp • Robots • Metal Detectors
LED Flashlights • And More!!!



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IT'S EASY TO ORDER FROM RAMSEY!

- ✓ On the web, visit www.ramseykits.com and order via our secure server
- ✓ Call our order desk at 800-446-2295 and speak to a friendly, knowledgeable Ramsey salesperson!
- ✓ Fill out the enclosed order form and send it right in!



Visiting the Rochester, New York area?
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LEARN, BUILD, AND ENJOY WITH RAMSEY ELECTRONICS!

Hi, and welcome to our 28th year and the new Millennium. If you are one of our thousands of long time customers you will notice some *exciting New Products* we've added to our catalog. If this is your first Ramsey catalog I'm sure you'll enjoy the experience!

Inside you'll find the nation's largest selection of affordable and fun electronic hobby kits, from beginner to expert, as well as a hand-picked selection of other neat electronic gear.

Hands-on is the fun way to learn technology, and we've got projects to stimulate your imagination and provide hours of enjoyment. Warm up a soldering iron, get out the hand tools, and have a ball! How about a robot with a remote camera transmitting video back to your home TV, all controlled by a simple Basic Stamp chip that you programmed? Or how about broadcasting sound files from your PC to your home stereo? It's all inside and you can do it!

If you've never built a kit before – don't fret! Our kit assembly manuals carefully lead you through parts identification, assembly, hook-up, and testing. We even give you a little circuit theory and some fun application ideas! You'll be amazed and pleased at what you can do!

Take your time, read through the catalog, order, and build a kit! We know you too will find the FUN and excitement of Electronics!

John Ramsey



GREAT NEWS FOR 2001!

You probably know Ramsey Electronics is one of the leading manufacturers of professional wireless test equipment. To provide our customers with an even broader line of professional test equipment, we've merged with Avcom of Virginia, a leading manufacturer of spectrum analyzers and microwave equipment.

What does this do for you? It brings the best of both technologies to you for the latest and the greatest, in test equipment and wireless equipment. See page 46 for additional information.

Call us today, and request a professional equipment catalog, or log on to www.ramseytest.com.

MP3FM Broadcaster



You don't have to sit at your computer to listen to your MP3's!

- Listen to your latest downloads on your "big" home stereo
- Load a playlist and listen on your boom-box in the garage or on the deck
- Listen through your headphones while mowing the lawn!

If you're like many of our customers, you have a hard drive loaded with music files you've downloaded. So what do you do with them? Most just listen to them while instant messaging, or maybe burn some CD mixes. But you probably don't have time or desire to convert all of them to CD format.

Ramsey to the rescue!

Our MP3FM is the first kit designed specifically for broadcasting PC sound files to your FM radios. We started with a synthesized FM transmitter for rock solid tuning. We added a mini-plug input to connect directly to your sound card output (we also provide the cable). Since you'll still want to use your PC speakers, we provide a PC speaker output jack on the back of the MP3FM.

The unit can transmit on any frequency in the 88 to 108 MHz FM band. It has enough power to reach any FM radio in your house or yard. Frequency is set with dip-switches and locked. Since this is the licensed commercial FM band, we give you complete instructions on selecting an open frequency.

The MP3FM is sold in kit form only, and includes an attractive black case, AC power supply, whip antenna, and PC patch cord.



It has features and power not available on any commercially available unit. It is easy and fun to build – and you get the satisfaction of saying "I did it".

P.S. – The MP3FM can also be used to broadcast the output of a CD player, cassette deck, etc. You'll just need an adapter to connect the patch cords if they don't have a 1/8" stereo output plug.

MP3FM

MP3 Stereo Broadcaster Kit, with Matching Case, Power Supply, and Antenna

\$99.95

Super-Pro Synthesized FM Stereo Radio Station

Complete Professional Radio Station...All-in-One!

- Synthesized 88 to 108 MHz for no frequency drift!
- Built in mixer – 2 line inputs and one microphone input!
- Low pass filter for great audio



Wired & Tested

Our FM100 is a truly professional frequency synthesized radio transmitter station in one easy to use, handsome cabinet. It is used all over the world by serious hobbyists as well as churches, drive-in theaters, and schools. No one else offers all these features at this price!

It's easy to set up and use. Set your transmit frequency with the Up/Down frequency buttons. The built-in mixer has one microphone and two line level inputs. For most applications no additional mixing or signal conditioning is needed. The LED bargraph meters let you easily set and monitor audio levels.

Sound quality is impressive, and equal to or better than most commercial stations. Low pass input filtering plus peak limiters put maximum "punch" in your audio, and prevent over-modulation distortion. Churches, drive-ins, schools and colleges find the FM100 to be the answer to their transmitting needs...you will too.



The kit includes sharp looking metal cabinet, whip antenna and built-in 110 volt AC power supply. An external antenna connection allows hook-up to high performance antennas like our vertical and Yagi models on pages 6 and 7.

We also offer a high power export version of the FM100 that's fully assembled with one watt of RF power, for miles of program coverage. Many islands and villages use it as their local radio station! The export version can only be shipped outside the USA, or within the U.S. if accompanied by a signed statement that the unit will be exported.

FM100	Super-Pro FM Stereo Radio Station Kit, 25 mW Output	\$249.95
FM100EX	Super-Pro High Power (Export ONLY) Kit, 1W Output	\$329.95
FM100WT	Super-Pro High Power (Export ONLY) Factory Wired & Tested, 1 Watt Output	\$399.95
PA108	Internal 1 Watt Module for FM100 (Export ONLY)	\$80.00

Personal FM Broadcasters...Who Would Want One??

Unless you have a whole house sound system installed, you listen to your CD's etc. in the room where your stereo is. If your house is like mine, sometimes "Mom" wants to watch the TV when you want music. An FM broadcaster connects directly to the line output from your CD player/changer, or to one of the tape-out connections on your receiver. It then broadcasts to any FM radio in your house or yard. Depending on the model you choose and your location, range is 1/4 mile or more under optimum conditions.

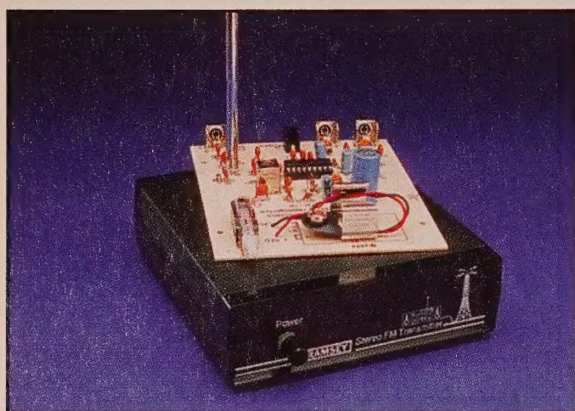
Just Imagine...Load your CD changer with your favorite tunes and:

- Head to the garage or workshop with your boom-box
- Lounge by the backyard pool (lucky you) with great music
- Set portable stereos in the yard for your next picnic

Other common uses for our broadcasters include:

- Sound reinforcement for churches and auditoriums
- Rebroadcast of TV audio in health clubs and prisons
- College and high school radio stations
- Drive-in theaters

RAMSEY has a complete line of Personal FM Broadcasters...from low cost tunable units, to 100 Watt professional LPFM Transmitters! Whatever your application is...we've got you covered!



Tunable FM Stereo Transmitter

Our most popular transmitter...for years and years!

- Tunable anywhere in standard FM band... 88 to 108 MHz
- Operates on 5 to 15 VDC
- Standard line level inputs with RCA phono jacks
- Settable pre-emphasis 50 or 75 µSec for use anywhere in the world
- Adjustable input sensitivity and stereo balance
- Easy to build, low cost transmitter



GREAT IDEA!

Build the FM10A and learn the basics of FM Broadcasting... PLUS have a fun product when you're done!

The FM10A has plenty of power and our manual goes into great detail outlining all the aspects of antennas, transmitting range and the FCC rules and regulations. You'll be amazed at the exceptional audio quality of the FM10A; in fact, your station will sound better than most others on the dial! This is because in their quest for ever higher ratings, FM broadcasters crank up the average level of their modulating signal in order to sound "louder".

This produces a noticeably more muddy and constrained sound than your signal. Runs on internal 9V battery or external power from 5 to 15 VDC, or an optional 120 VAC adapter is also available. Don't forget to add our matching case set and antenna for a nice finished look. Optional case size 5"w x 1 1/2"h x 5 1/4"d.

FM10A	FM Stereo Transmitter Kit	\$34.95
CFM	Matching Case & Knob Set	\$14.95
FMAC	110 VAC Power Supply for FM10A	\$9.95



Synthesized FM Stereo Transmitter

- Synthesized 88 to 108 MHz for no frequency drift!
- Strappable for higher power output
- Kit includes case, AC adapter, and whip antenna
- Great for schools, health clubs, realtors...or your backyard!
- The ideal campus or school radio station



Need professional quality features but can't justify the cost of a commercial FM exciter? The FM25 is the answer. A cut above the rest, the FM25 features a Motorola microprocessor for easy frequency programming — no need for look-up tables or complicated mathematical formulas! Transmit frequency is easily set using DIP switches, no need for tuning coils or "tweaking". There's no frequency drift, your signal is rock solid all the time — just like the commercial stations. Audio quality is excellent; simply connect to the line output of any CD player, tape deck or mike mixer and you're on the air.

Foreign buyers will appreciate the high power output capability of the FM25; many Caribbean folks use a single FM25 to cover the whole island! New and improved with clean and hum-free running on either 12 VDC or 120 VAC. Kit comes complete with case set, whip antenna, 120 VAC power adapter and easy assembly instructions — you'll be on the air in just an evening! Case size 5"w x 1 1/2"h x 5 1/4"d.

FM25	Professional Synthesized FM Stereo Transmitter Kit, 10 mW/100 mW Output	\$129.95
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Low Power FM Radio Stations...NOW AVAILABLE!

Low Power FM or LPFM is a new class of FM radio service authorized by the FCC. The new service consists of 10 Watt and 100 Watt stations which will serve areas with a typical radius of 1 to 5 miles. LPFM is a non-commercial radio service. Eligible licensees will be non-commercial government or educational organizations, associations or entities (which includes churches), or non profit entities providing public safety

or transportation services. Initially the licensees will be limited to local entities who are physically headquartered within 10 miles of the station.

In order to create opportunities for new voices on the airwaves, no existing broadcaster or media entity will be eligible for a license. There is no charge for the license itself.


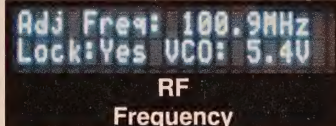

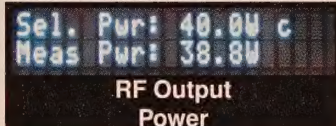
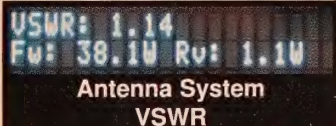
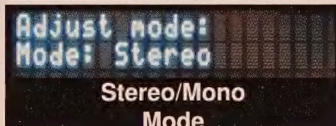

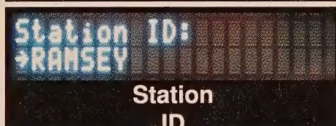

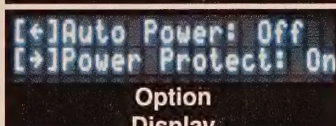
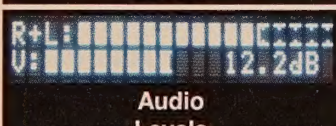

For more information on LPFM, visit www.fcc.gov.

Professional 40W FM Stereo Transmitter

The ideal transmitter for LPFM and community broadcast

- 40W output, temperature and VSWR protected
- Automatic audio & power controls
- Digitally synthesized PLL for rock solid frequency stability
- Digital display of all parameters
- Automatic battery back-up switch
- 110/220 VAC, 12 VDC operation



Full front panel monitoring

Operation of the PX1 is simple and intuitive via the front panel switch matrix. All functions, controls, and status are displayed on the 2 by 20 line Vacuum Florescent display.

Use it anywhere in the world

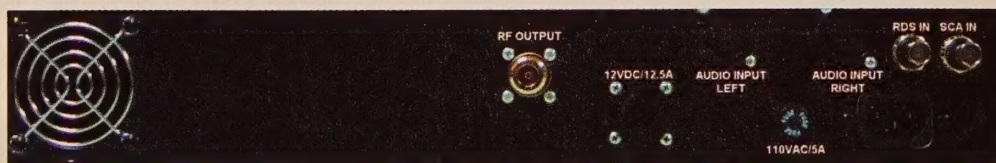
We designed the PX1 to be the Gold standard in transmitters intended for worldwide service. Whether your power main is 110, 220 VAC or 12 VDC, the PX1 can handle it. Our battery back-up option is ideal for remote areas with questionable power; a standard automobile battery is seamlessly switched in when regular mains power is lost – your listeners will never miss a beat! Automatic VSWR protection ensures maximum power into any antenna situation that may develop such as ice or elements broken due to wind. Such conditions would shut competitive transmitters down.

"Virtual" station engineer continuously checks your system

With computational power that rivals many personal computers, PX1 circuitry makes subtle adjustments to various circuit parameters depending upon frequency, temperature, power, audio level, deviation – in short, its like having a station engineer constantly monitoring and adjusting on-the-fly! An 8 times oversampled stereo generator with true analog filters throughout assures a clean, refreshing sound image while the RF transmitter chain employs generously rated components for headache free, long life. The PX1 can also be used as an exciter only for higher power installations. Coming soon, 250 and 500 Watt FM transmitters.

Fast installation, quick setup, simple connections!

Installation of the PX1 is a breeze. A standard Type-N connection is provided for RF output. Balanced (XLR) left and right audio inputs are provided to properly interface with any source you have. In addition, BNC SCA/Digital inputs are provided as is a quick disconnect connector for a 12 VDC standby/backup power input. In short, connect your audio sources and antenna, power it up, set frequency and power, and you're on the air! It doesn't get any simpler! All of this in a compact 3.5" standard 2 rack unit case!

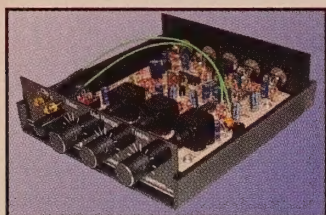


High power coming soon!

Coming soon, matching 250 Watt and 500 Watt transmitters. Contact us for more details on these high powered units.

PX1 Professional 40 Watt Synthesized FM Stereo Transmitter

\$1,795.00



Stereo Transmitter Companion

Audio processor gives your station more PUNCH and CLARITY – without distortion!



Wired & Tested

- Give your Ramsey broadcaster big-time sound!
- Limiter/processor provides high density modulation "punch"
- 3 band audio processor – separate controls for Bass, Presence, and Brilliance
- Handy peak limiter LED allows easy modulation setting

The STC1 connects easily between your CD player, mike mixer (our MX5 or 10 is ideal) or tape deck and the Radio Transmitter (FM10A, FM25 or AM25). Simply listen to the over-the-air quality and set the bass, brilliance, and presence controls for best sound. Set the levels so that the Peak LED flickers a bit and you're assured of perfect modulation. Operates on 9 to 15 volts DC. Make the next step towards professionalism with the STC1, available fully wired and tested or in money saving kit form.

STC1	Stereo Transmitter Companion Kit	\$59.95
CSTC	Matching Case & Knob Set	\$14.95
STC1WT	Factory Assembled and Tested STC1 with Matching Case	\$99.95



Stereo Mini Mixers

Professional sound at a hobby price!



Wired & Tested

- Smoothly mix multiple stereo inputs
- LED bargraph VU Meters plus headphone output on MX10
- Great with your Ramsey broadcaster or transmitters, or for your home recording studio

The heart of any studio is the mixer, and here are a couple of neat units, ideal for your Ramsey FM10A, FM25 or AM1 radio transmitter station. Either kit will allow you to smoothly mix multiple stereo inputs into one clean stereo output that's suitable for driving any tape deck or transmitter.

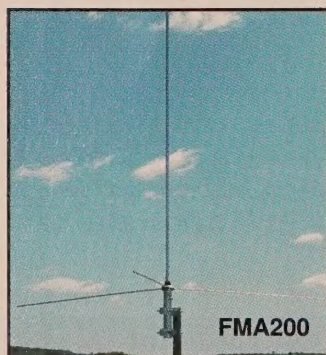
Our basic unit is the MX5 which has one mike input and two stereo line inputs, just right for simple broadcast or recording studio mixing.

The deluxe MX10 has two stereo line inputs plus stereo microphones, and a stereo phono input with RIAA equalization. A fader allows you to smoothly transition from one

input to another. a pair of fast, peak reading, ten segment LED bargraphs allow you to accurately set levels. For the broadcaster, cue switches let you get a record, CD or mike set up on your monitor headphones without passing the cue audio on to the output. Anti-clipping circuitry on the microphone inputs prevents those "screamers" from overloading the input and causing annoying distortion.

Small enough to be portable, yet large enough for a pro DJ to use, these audiophile quality mixers will bring hours of fun to you, and entertainment to others. You can build either mixer into your own case or control "board" or add our handsome, sloping panel matching case and knob set for a finished look.

MX5	Stereo Mini-Mixer Kit (1 mic. + 1 set stereo line inputs)	\$39.95
CMX5	Matching Case & Knob Set for MX5	\$29.95
MX5WT	Factory Assembled & Tested MX5, with Case and Matching Knob Set	\$89.95
MX10	Deluxe Mixer Kit (1 stereo mic, 2 stereo line, 1 stereo phono input)	\$69.95
CMX10	Matching Case & Knob Set for MX10	\$29.95
MX10WT	Factory Assembled & Tested MX10, with Case and Matching Knob Set	\$119.95



5/8 Wave Collinear Vertical FM Antenna

3.4 dB gain effectively doubles your power!

The FMA200 is probably the most popular antenna we sell. Why? How about the proven omnidirectional ground plane design, clean rugged construction, and easy mounting? The 5/8 wave design keeps your signal low to the horizon where you want to receive it.

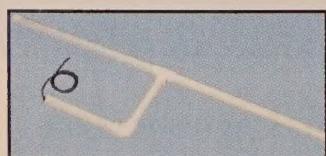
It's easy to assemble and mount to any common antenna mast. Has the common SO239 style connector available anywhere and looks that just can't be beat. Try one and see if you don't agree that it's one heck of an antenna for the money! Height: 7' 7" 200 watt power rating.

- 5/8 wave for excellent gain and maximum range
- Field adjustable for a perfect match
- Precision Japanese manufactured by one of the top antenna producers
- 200 Watt power rating

Precision tune to your exact frequency for a perfect VSWR!

FMA200 5/8 Wave Collinear Antenna, 200W Max

\$114.95



Tru-Match FM Antenna

Great performance at a hobbyist price!

Need a great antenna, but don't want to spend a lot? Choose our TM100. It comes with instructions on how to impedance match with your broadcast system. This protects your final amplifier stage, and gives you maximum range. Get the most from your FM Broadcaster!

- Fully weatherproof, rugged pvc construction
- Matches to 50 or 75 ohm systems
- Easy mounting: vertical or horizontal
- Tunable for perfect match over the entire 88 to 108 MHz FM band
- Ideal for transmit or receive

TM100 FM Broadcast Antenna Kit, 10W Max.

\$39.95

Log Periodic Directional FM Antenna

Extremely high gain, directional for a custom pattern!

- Horizontal or vertical polarization
- Quadruples your transmit power!
- Directional pattern ideal for putting signal where you want it!
- 2 versions: semi-pro and commercial duty
- All elements at DC ground for excellent lightning protection
- Greater than 7 dB gain and 15 dB front to back ratio!

We developed this antenna for those applications where you don't want to provide omnidirectional coverage. Where you might ask? When you are on the edge of town and you want to concentrate your signal into the most populated area, why waste signal on the outskirts? Your signal is directed into

the forward path with a multiplying effect of over four times while the signal coming off the back is reduced by over 30 times!

The log-periodic design is wideband over the entire FM band meaning that you don't have to tune the antenna to your frequency. Also, the antenna is designed to be at DC ground which means a lot when you're in a thunderstorm prone area!

Two versions are available, semi-pro and commercial. The commercial version uses solid aluminum elements and booms while the semi-pro uses hollow elements and extruded boom. Longest element 71", boom 45". Includes mounting brackets for horizontal or vertical use.



FMA300 Semi-Pro Log Periodic Directional Antenna, 300W Max.
FMA400 Commercial Version, 1000W Max.

\$379.95
\$449.95

Professional Synthesized AM Transmitter

Be rock solid...and stable!

- Fully synthesized, no frequency drift!
- Ideal for schools
- Microprocessor controlled
- Strappable for higher power output where regulations permit
- Includes AC power adapter, case and bottom loaded wire antenna instructions



Run your own radio station! The AM25 operates anywhere within the standard AM broadcast band, and is easily set to any clear channel in your area. The design is similar to that of a commercial radio transmitter, so you'll learn how the "big guys" operate. It is widely used by schools — standard output is 100 mW, with range up to 1/4 mile, but is jumper settable for higher output where regulations allow.

Broadcast frequency is easily set with dip-switches and is stable without drifting. The transmitter accepts a line level input from CD players, mixer boards, etc. Add one of our mini mixers (page 6) to equip a complete professional sounding and operating station. Many high schools, colleges, churches, and prisons use this very system today! Vintage radio buffs take note: Our AM25 is ideal for broadcasting music or old-time program tapes to your classic sets!

AM25 Professional AM Synthesized AM Transmitter, Matching Case, Knob Set, and AC Power Supply

129.95

Tunable AM Radio Transmitter

Easy to build...learn the basics, and have fun with your very first radio transmitter!

- Tunes entire 550 to 1600 KHz AM band
- Operates on 9 to 12 VDC
- Standard line level input with RCA phono jack
- 100 mW output. Range up to 1/4 mile under optimum conditions



RAMSEY FACT!

The AM1 has been sold to hundreds of Boy Scout Troops as a Merit Badge Project!

The AM1 is a great first kit, and a fine low power AM broadcaster for the hobbyist on a budget. It's a great way to learn the basics of AM broadcast technology, not to mention basic soldering and component identification (if you're a beginner!) The transmitter can be tuned to broadcast anywhere in the AM band (550 to 1600 kHz). Setting frequency is simple — tune a nearby AM radio to the desired frequency, then adjust the AM1 coil to match the radio. With 100 mW of output power, range can be up to 1/4 mile. The AM1 has



been used by scout camps, churches, schools, and other organizations to provide easy and low cost communications. Aspiring disc jockeys can add one of our line/mic. mixers on page 6 to make a complete broadcast station.

The basic kit includes board and components. Finish your project off with our matching case and knob set. Power is 9–12 VDC. An optional power adapter is available.

AM1 AM Radio Transmitter Kit
CAM Matching Case & Knob Set for the AM1
AC125 12 VDC AC Power Adapter

\$29.95
\$14.95
\$9.95



RF Linear Power Booster Amplifier

Looking for a quick and simple boost for signal generators, transmitters, or other low power devices? Here it is!

- Broadband signal boost from 100 KHz to 1 GHz with up to 1 watt of power
- Up to 7000 times boost at 10 MHz
- Easy to build in a couple of hours, uses new MMIC technology
- Great for general purpose test bench or Ham applications


Wired & Tested

The LPA1 is the ticket for boosting power up to 1 watt over a frequency range from 100 KHz to over 1000 MHz! Although intended for use as a lab amplifier, many users in foreign countries use the LPA1 to boost their Ramsey FM stereo transmitters to a watt of power, capable of providing radio service through an entire town. Our clearly written instruction manual and top quality, plated PC board make assembling this powerful

amplifier quick, easy and fun. Power required is 12 to 15 volts DC at 250 mA via 2.1 mm male power jack. Gain of 38 dB at 10 MHz, 10 dB at 1000 MHz. For a neat, professionally finished look, add the optional matching case set. Optional case size 5" w x 1 1/2" h x 5 1/4" d. Don't forget to check out our high performance FM Broadcast antennas on pages 6 and 7.

LPA1	Linear Power Booster Amplifier Kit	\$39.95
CLPA	Matching Case & Knob Set for LPA1	\$14.95
LPA1WT	Factory Assembled & Tested LPA1 With Case	\$99.95
AC125	12 VDC AC Power Adapter	\$9.95



Universal Broadband Preamp

Increase sensitivity of receivers and test equipment!

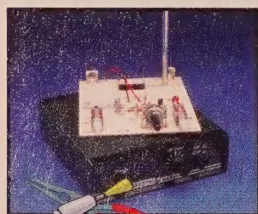
- Broadband...from 1 MHz to 1000 MHz, usable to 2000 MHz!
- Low noise figure < 2.5dB
- Improves AM, FM, VHF TV, UHF TV, and HF reception. 50 – 75 ohm imp.
- Over 25 dB Gain with up to 100 mW of power output!
- Runs on 12 VDC or AC – plus we include a 120 VAC wall adapter

Wired & Tested

Ever wish you could "perk-up" your counter or scanner to read weak signals? Or how about boosting that cable TV run to drive sets throughout the house or maybe preamping that TV antenna to bring in that blacked out football game? The PR2 broadband preamp is the answer to all these needs as well as many others. You can use the PR2 anywhere a high gain, low noise amp is called for; digging out those weak short-wave signals or putting new life into that scanner radio – especially at 800 MHz. Since the PR2 has such a high compression point of almost 100 milliwatts,

you can even use it to boost the power of small, micro transmitters! Newly designed microwave MMIC chips from NEC Japan enable the PR2 to have gain up to 2 GHz although we only spec the PR2 to 1 GHz (believe it or not the connector lead length is the limiting factor!). Customers tell us that the PR2 outperforms professional lab units by the "Big Boys" that go for hundreds of dollars more. The PR2 is the ideal general purpose RF amp that you'll wonder how you got along without. Runs on 12 VAC/DC or 120 VAC using the included wall adapter. Size: 4" x 2" x 1".

PR2 Broadband Preamp, Factory Assembled & Tested

\$59.95


Active Antenna

Eliminates outdoor wiring!

- Dual Preamp for HF or VHF/UHF
- Performs like a 60' Long Wire!
- Operates as a stand alone antenna or in conjunction with an existing antenna

Our AA7 features both a high gain, low noise FET and a superb microwave bipolar amplifier, letting you use the antenna on all bands – shortwave, HF, VHF and UHF! Imagine a self-contained unit just 4 inches square that pulls in the signals like a 60 foot long wire; that's the advantage of an active antenna. For jazzing up VHF/UHF receivers and scanners the AA7 has you covered, too. Over 15 dB of gain pulls in the weak ones, whether you use the built-in telescopic whip or an outside antenna. Features of the AA7 are: front panel RF gain control, power switch with preamp bypass switching, two position HF and VHF/UHF selector, rear panel input and output connectors, convenient 9 volt battery operation and on-board telescopic whip antenna. We think you'll agree that the AA7 is simply the most practical and best value of any active antenna on the market! Includes whip antenna. Operates on 9V battery (not included). Don't forget our snazzy matching case set for a really nice finishing touch. Optional case size 5" w x 1 1/2" h x 5 1/4" d.

AA7	Active Antenna Kit	\$28.95
CAA	Matching Case & Knob Set for AA7	\$14.95



Signal Magnet Antenna

Pulls them in out of the noise!

- Outstanding results from 500 KHz to 15 MHz
- High-Q Ferrite Rod antenna with Faraday shield eliminates noise from power lines, light dimmers, most static crashes, and more!

This antenna responds only to the magnetic field of the desired station and ignores the electrostatic field where most interference is found. It does a remarkable job pulling in stations lost down in the noise of powerline crud, fluorescent lamp buzz and light dimmer hash. Plus it's very directional, able to null strong stations on the same or nearby frequency! We developed this antenna to pull in WGR, a 250 watt nighttime station 75 miles away, so we could listen to Buffalo Bills talk radio during the night. You can imagine all the powerline and equipment noise we have here at the factory. So, we came up with this ferrite rod, varactor tuned active antenna that's Faraday shielded – so it only responds to the magnetic field – and boy does it do the job! Designed to cover the AM broadcast band, but includes details on building for any frequency range up to 15 MHz, it works gang-busters on Shortwave. Works indoors or out, contained in rugged PVC pipe with a single RG59 coax cable connector. Operates with up to 500 feet of coax cable (you supply) between antenna assembly and control box (size: 5" x 5 1/4" x 1 1/2"). Includes all parts, matching case set and precut PVC materials. Operates on external 120 VAC power adapter that is included. Antenna is 9 1/2" x 9" long, L-Shaped 1" pvc pipe with end caps.

SM100	Signal Magnet Noise Reduction Ant. Kit	\$79.95
SM100WT	Factory Assembled & Tested for AM Band	\$119.95

FMLP1 FM Low Pass Filter

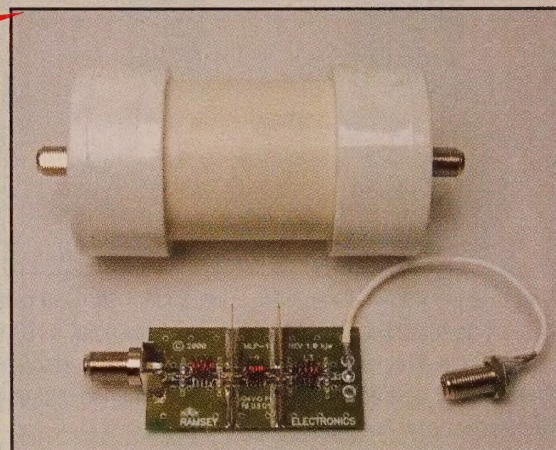
"Clean Up" your FM Broadcasts

The FM Low Pass Filter kit came about while designing the PX1, Professional FM Broadcaster. The FCC Ruling 99-25 created a class of radio stations designed to serve localized communities by authorizing new classes of non-commercial low power FM radio services (LPFM). In order to meet the stringent guidelines of the FCC, the PX1 underwent months of design sessions and many hours of painstaking tests. One of the secrets to its clean output is the FMLP1.

If you own one of those spectrally dirty "import exciters" you'll definitely want to add the FMLP1 to the clean up the output and properly match your power amplifier. Maximum input power 50 watts. The kit utilizes surface mount clip caps, so you'll need ultra fine solder and a magnifying lamp.



Wired & Tested



FMLP1	FM Low Pass Filter Kit	\$24.95
FMLP1WT	FM Low Pass Filter, Wired & Tested	\$39.95

Spypen Digital Subminiature Camera

Never be caught without a camera, this one fits in your shirt pocket!

Think of the fun you can have with this digital camera! With 8.0 MB of SDRAM, it can store 80 high resolution pictures, or 360 in low resolution. Or go "Hollywood" and shoot up to 40 seconds of video. It's about the size and weight of a candy bar, so you can take it everywhere! The 45° field of view gives you a nice wide picture, shoot eight to create a 360° panorama!

Download to your PC via the USB port, 5 software packages are included.

- Cool 360 photo panorama software
- Photo Explorer visual file management software
- Photo Express 3.0 for photo editing software
- Video Mail desktop videomail software
- Microsoft NetMeeting

The unit is powered by 2 x AAA alkaline batteries, but draws power through the USB port when connected to the PC. USB Cable is included.

SPDC	Spypen Digital Camera	\$119.95
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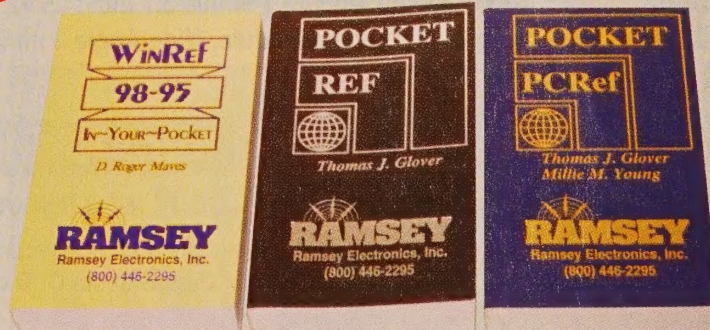
Pocket Reference Books

*Over 500 pages, jam-packed with information –
Modern civilization in a book!*

WOW!!! Is it possible that ALL the answers to every technical question you could possibly have are in these three books? Maybe not, but I'll bet most of them are. Each manual contains over 500 fact filled pages.

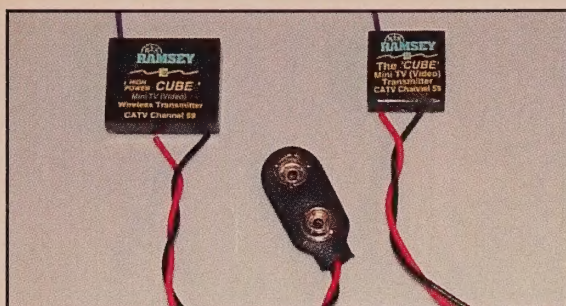
The Pocket Reference, has hundreds of charts, table, conversion factors, constants, specifications on every aspect of human endeavor. Chemistry, Engineering, Physics, Math, Science, Mechanicals, Electronics, Electricity, Construction, Pneumatics, Welding...almost anything.

A companion book the Pocket PC Reference is fast becoming a PC "users bible." Drive specs, ASCII codes, RS-XXX specs, DOS commands and explanations, connector layouts, scan codes, mother board, disk drive and interface pin-outs. It's in here!



The indispensable WinRef 98-95 won't answer every Windows question you might have (who could?) but it makes one great reference. Commands, common file names and explanations, bootup and shutdown problems, how to's and don't do's. You'll find all this and more.

PRB1	Pocket REF Handy Reference Book	\$9.95
PPCR1	Pocket PCREF Handy PC Reference Book	\$14.95
PWINREF1	Pocket WINREF Handy Windows 98-95 Reference Book	\$14.95



The Cubes! World's Smallest Video Transmitters

Wireless crystal clear reception, yet smaller than a quarter!

- Crystal clear transmission
- Transmit on cable channel 59
- High power model available
- Small enough for ANY application!
- Thousands sold...a proven leader!

Wired & Tested

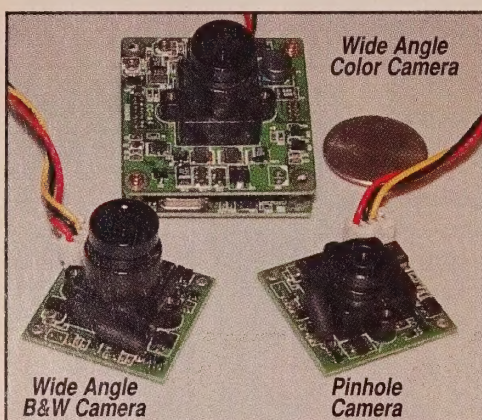
GREAT IDEA!

Use a Cube to broadcast a camera throughout the house for the ultimate baby monitor!

Perfect video transmission from a transmitter you can hide under a quarter and only as thick as a stack of four pennies! Transmits color or B&W with fantastic quality – almost like a direct wire connection to any TV tuned to cable channel 59. Crystal controlled for no frequency drift with performance that equals law enforcement models that cost hundreds more!

Basic 20 mW model transmits up to 300' while the high power 100 mW unit goes up to 1/2 mile. Units run on 9 volts and hook-up easily to most any CCD camera module. Any of our camera modules have been tested to mate perfectly with the Cubes and work great with solid, trouble-free operation! Fully assembled and tested – just hook-up power and you're on-the-air with a killer system!

C2000	Video Cube Transmitter, Factory Assembled and Tested	\$89.95
C2001	High Power Video Cube Transmitter, Factory Assembled and Tested	\$179.95



CCD Board Video Camera Modules

Smallest Size...Highest Quality!

- Wide angle, pinhole, and color models available
- IR sensitive
- Super small for any of your applications
- No sacrifice of quality for price!
- Fully assembled and tested!

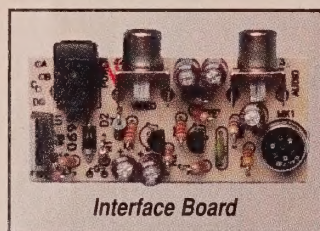
Wired & Tested

If you're looking for a good quality CCD board camera, stop right here! Our cameras use top quality Japanese Class "A" CCD arrays with over 380 line resolution for the B&W units (330 line for the color unit), not the off-spec arrays that are found on many other cameras. You see, the Japanese suppliers grade the CCDs at manufacture and some manufacturers end up with the off-grade chips due to either cost constraints or lack of buying "clout". Our cameras have nice clean fields and excellent light sensitivity. You'll really see the difference.

And if you want to see in the dark, the black & white models are super IR (Infra-Red) sensitive. Our IR1 Illuminator kit is

invisible to the human eye, but lights the scene like a flash-light at night!

Color camera has Auto White Balance, Auto Gain, Back Light Compensation and DSP! Available with Wide-angle style lens. All cameras run on 12 VDC and produce standard 1 volt p-p video. Add one of our transmitter units for wireless transmission to any TV set, or add our IB1 Interface board for audio sound pick-up and super easy direct wire hook-up connection to any Video monitor, VCR or TV with video/audio input jacks. Cameras are fully assembled, including pre-wired connector.



CCDWA2	B&W Camera Module, Wide Angle 3 mm/f3.5 80° Lens, Factory Assembled & Tested	\$69.95
CCDPH2	B&W Camera Module, Pinhole 3.7 mm/f4.5 92° Lens, Factory Assembled & Tested	\$69.95
CCDCC1	Color CCD Camera Module, Wide Angle 3 mm/f3.6 92° Lens	\$129.95
IB1	Interface Board Kit	\$14.95

Infra-Red Illuminator

Don't let darkness dim your view...See what you're missing!

- Great for do-it-yourself security
- Use with our CCD cameras

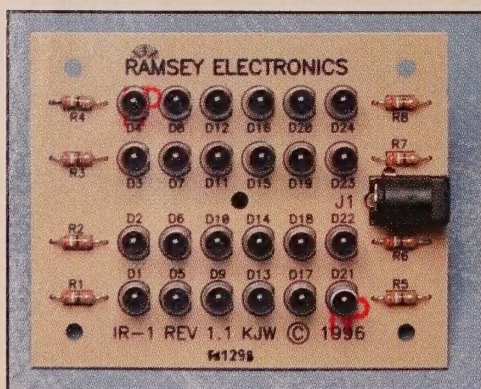


DID YOU KNOW?

Black & White CCD cameras see IR illumination as light, and can give you a great picture in total darkness!

Imagine being able to see in total darkness; it's easy with one of our CCD video cameras and this neat-o IR illuminator! There's nothing magic about this kit – it's just an array of 24 high intensity IR LEDs and appropriate drive circuitry. The real magic is in the CCD video camera. CCD sensors are sensitive to IR light that you can't see, thus illuminate the scene with IR and the camera "sees" just fine. We've selected extra high intensity LEDs that are absolutely invisible to anybody (except for aliens and Casper), the whole

board draws about 150 to 180 mA at 12 volts DC. Small size allows easy hiding in clocks, smoke detectors, pictures or any object your devious mind can think of. Pop a piece of smoked plexiglass in front (looks clear to IR) and you've hidden the light source. The whole array will illuminate similar to what you'd expect of a bright flashlight. Get one of our cameras, this illuminator and...well, just tell us the good stuff!



IR1	IR Illuminator Kit	\$24.95
AC125	12 VDC AC Power Adapter	\$9.95

Automatic Sequential Video Switcher

Don't miss a beat...watch four cameras on one monitor!

- Automatic sequential switching of up to 4 separate video sources
- Perfect for security cameras
- Manual selection of any source
- Variable timing



Wired & Tested



One of our newest kits! Now you can monitor up to four video cameras or other video sources on one video monitor. The AVS10 will automatically sequentially switch between inputs 1 through 4, and display the output on a video monitor. Perfect for multiple video camera installations, stores, household surveillance systems, and more. Has four RCA inputs for video, and one RCA output connector,

so you can use standard consumer video cables. Variable front panel timing control allows you to change the viewing time for each sequential view. Change it from fast to slow depending on your requirement! If you see a view you need to study, you can manually select that input for constant monitoring. Single PC board construction. Unit measures 5"w x 1 1/2"h x 5 1/4"d.

AVS10	Automatic Video Sequencer Kit	\$34.95
CAVS	Matching Case & Knob Set for AVS10	\$14.95
AC125	12 VDC AC Power Adapter	\$9.95
AVS10WT	Factory Assembled & Tested AVS10 with Case & Knob Set, and Adapter	\$89.95

UHF TV Transmitter

Video and Audio to any TV on UHF!

- Transmits on channels 17 to 42
- 100' Range
- Fully assembled and tested!

Wired & Tested

Transmit audio and video to any TV set with this transmitter unit that comes fully assembled. Although not small enough for James Bond 007 style hiding, it still offers some neat features. Takes standard 1 volt p-p video and audio (like you get from our IB1 Interface Board, page 10) and transmits on any UHF TV channel of your choice from 17-42. This fully assembled unit is housed in a rugged metal case and includes AC adapter, telescopic whip antenna and even RCA phono plug patch cords! Can also run on 12 VDC. Will transmit up to 100 feet.



VS2 Video/Audio UHF Transmitter, Factory Assembled and Tested

\$29.95

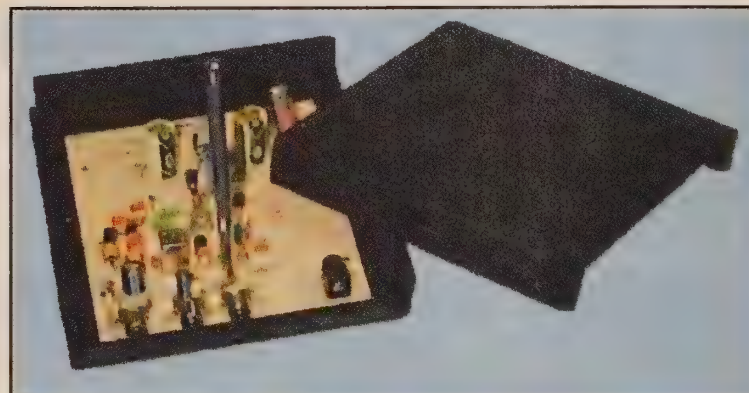
VHF TV Transmitter Hobby Kit

Build your own home TV station...and learn the basics too!

- Use with your camcorder for in-house broadcasting
- Broadcast your VCR to any room in the house
- Transmits on channels 2-6



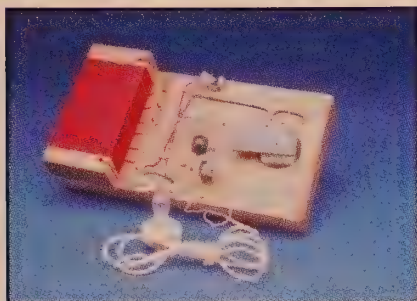
This great little kit allows you to send any audio and video source (like a VCR or TV camera) to any TV set for up to 300 feet. Have your own TV station with YOU playing producer and YOUR selection of programming! And, the nice feature of this kit is that you'll learn just how a TV transmitter works; we explain every part of the circuit from A to Z. Tunable to any TV channel 2-6, runs on 12 VDC, and accepts standard audio and video signals. Our matching custom case set gives a clean, finished look to your transmitter.



RAMSEY FACT!

The TV6 has been a leading kit to teach the fundamentals of TV Transmission!

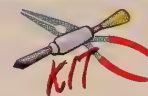
TV6	VHF TV Transmitter Kit	\$27.95
CTV	Matching Case & Knob Set for TV6	\$14.95
AC125	12 VDC AC Power Adapter	\$9.95



Crystal Radio Set

Relive radio history!

- Proof that you can receive radio signals with a rock?
- No power required!
- No soldering needed!
- All parts included: from antenna wire to sensitive crystal earphone
- Re-live the "Golden Years" of radio



RAMSEY FACT!

Our CS1 is one of the leading educational kits sold to scouts and schools. Relive history, and reinvent radio!

In the words of best-selling author Cliff Stoll "I've searched high and low for a piece of Galena." What's Galena? Probably the most important material to any electronics person over 50 years old. Galena is the heart of the Crystal Radio Set, a radio that needs no batteries. You'll build a crystal set similar to the ones built by early radio pioneers, using parts that are considered crude by today's standards. What a thrill to pull signals out of the air on such a simple rig.

The detector uses an actual piece of Galena, a mineral with semiconductor properties. The manual encourages experimentation with other detectors – even a pencil lead or

old razor blade, similar to the "fox-hole" radios of World War II. The Crystal Set requires no soldering, making it ideal for introducing newcomers to the "art" of radio. We show you how to build a standard AM broadcast band radio as well as a shortwave set capable of picking up signals from across the ocean.

Complete with all parts, including a sensitive crystal earpiece and even some antenna wire. Try the CS1; see how simple a radio can be and find a whole new appreciation of today's electronic technology. Assembled on a wood (Pine) base with brass screws – looks great when stained and varnished! Size: 6 1/4" w x 3 1/2" d x 3" h.

CS1 Crystal Radio Set Kit

\$19.95



DC Motor Speed Control

Full power...no matter what the speed!

- Real pulse width modulation for accurate, stable motor control
- Controls DC motors from 3 to 50 volts – up to 10 Amps!

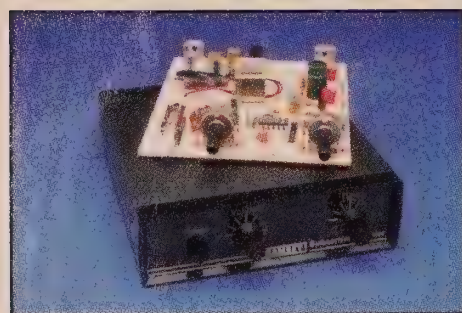
You see, controlling a DC motor's speed is not as easy as varying its supply voltage. The motor loses torque (power) as the voltage is lowered and finally stops rotating. The MSC1 uses a technique known as "Pulse Width Modulation – PWM" to control speed. This is the same system as used on electric cranes, buses and subway cars. With PWM, the motor receives full voltage whenever energized – however, the duration of the voltage changes;

it's sort of like flipping an on/off switch very rapidly! The motor rotates smoothly and with full power – no matter what the speed. The MSC1 will control DC motors from 3 to 50 volts at up to 10 amps! Complete instructions detail how the PWM circuitry operates and some hook-up ideas. Assembly takes only an hour or two. Kit operates on 9 to 12 VDC and controls motor supply of 3 to 50 volts. Add our snazzy matching case set for a finished look: size 5" w x 1 1/2" h x 5 1/4" d.



MSC1 DC Motor Speed Control Kit
CMSC Matching Case & Knob Set for MSC1

\$24.95
\$14.95



SCA Decoder

How do they get that commercial free music?

- Tunes entire SCA sub-carrier band, 50 to 100 KHz
- Features both speaker and line level audio outputs
- Simply plugs into our FR1 FM broadcast receiver or connects to the detector in any FM receiver

Believe it or not, they get it off the local FM radio station, but with a special decoder. Now you can build your own decoder and tap into the wealth of programming available to those "in-the-know." Programming available runs the gamut from stock quotes, to rock music, to easy listening, to all news. These services are "hidden" in subcarriers riding along with

the standard FM radio station's usual programming. The decoder connects to the detector output on an FM receiver; if your receiver does not have such an output, consider our FR1 receiver kit featured on page 15. Tune into what you've been missing, try the SCA1. Add our matching case set for that final finishing touch.



SCA1 SCA Decoder Kit
CSCA Matching Case & Knob Set for SCA1

\$27.95
\$14.95



Music Lights

Create your own light show!

- Control three channels X 300 watts of lights
- Lights flicker to music: Low, Mid, High
- Runs on 120 VAC

See music come alive! Three different lights flicker in time to music, one light each for low, mid and high frequencies. Each is individually adjustable, runs on 120 VAC and controls up to 300 watts per channel, enough to drive spotlights, Christmas lights, etc. Just like the rock concerts and Vegas shows.



ML1 Music Lights Kit
CML Matching Case & Knob Set for ML1

\$19.95
\$14.95

Van DeGraff Generator

Every mad scientist needs one!

- Produces up to 250,000 volts!
- Operates from 12 volt DC power supply that's included
- Manual includes many fascinating experiments
- You've seen these at the Science Museum and in Monster Movies!

Add a little spark and zip to your life! Create your own lightning and have fun demonstrating all the effects of high voltage. Our Van DeGraff generator looks dangerous but is perfectly safe and is an ideal educational kit for the person with an interest in science and high voltage. Perform the classic "hair raising" demonstration where your hair will literally stand out on end! Turn out the lights and amaze everyone by safely drawing up to one foot sparks right to your hand! This easy to assemble kit is capable of producing up to 250,000 volts safely and quickly. The informative manual gives plenty of insight on high voltage theory and lots of interesting experiments to try out for yourself. Cleverly

constructed from precut PVC pipe, you'll find this project very durable, easy to assemble, and above all, fascinating for the beginner and experienced alike. Perfect for the classroom or science fair, this kit is easily disassembled and reassembled to show the components of its operation...so students can easily see what makes it "tick". Everything is included to get up and running — and yourself experimenting. DC operated motor runs quietly and efficiently from the included 12 VDC plug-in wall adapter. Size: 13" x 24" x 10 1/2".



VG1 Van DeGraff Generator Kit

\$99.95

Speech Scrambler/Descrambler

Decode that garbled gibberish!

- Full duplex operation allows scrambling and de-scrambling at the same time
- EZ hookup to any scanner, or radio
- Bypass mode provides quick change from direct audio to descramble (No moving wires)



Wired & Tested

Communicate in total privacy over your radio! This is the popular SS70A descrambler/scrambler that you've read about in all the Scanner and Electronic magazines. The technology used within the unit is known as speech inversion which is compatible with many police department systems; hook it up to your scanner speaker terminals and you're in business. (However, always be sure to check with your local authorities to ensure that you're not straying into any unlawful communications reception.) The SS70A

is full duplex in operation — you can scramble and unscramble at the same time. Easily configured for any use! Easy to build since all complex circuitry is contained in a new custom ASIC chip which provides clear, clean audio. Powered by 9 to 15 VDC, with 3.5 mm mini phone type input/output jacks. Our custom matching case set adds a super nice professional look to your kit. Optional case size: 5" w x 1 1/2" h x 5 1/4" d. Available in money saving kit form or fully wired and tested with case, ready to go!



SS70A Speech Scrambler/Descrambler Kit
CSS Matching Case & Knob Set for SS70A
SS70AWT Factory Assembled & Tested SS70A with Case
AC125 12 VDC AC Power Adapter

\$39.95
\$14.95
\$79.95
\$9.95

The Bullshooter Endless Loop Digital Voice Recorder

Digital storage and endless playback...for up to 8 minutes!

- Endless tape loop playback without the tape!
- Eight full minutes of pure digital audio storage time
- Mic & line level inputs
- Dual outputs for easy interface to transmitters and amplifiers
- Amplified speaker output for on-the-spot local announcing
- Great for "message on hold"



We've received a ton of calls from realtors and other people asking the same question... "What do you have that will repeat a sales pitch all day long?" Well, here it is, the BS1!!! Our latest kit combines a sweet new digital recording chip and a micro-processor to provide eight full minutes of high quality recording with "endless loop" playback capabilities. We added an on-board high sensitivity electret condenser microphone to record your announcements on the spot. Then we added a built in audio amplifier with a front panel volume control to play back your announcements directly to an external speaker.

Features dual line level mono outputs (RCA phono connectors) for connection to left & right stereo inputs on amplifiers and transmitters, line level input (RCA phono connector) for external line level input, and 2.5 mm miniature phone speaker output. Perfect for everything from advertising real estate to repeating monotonous instructions at a swap meet! Easy one-touch pushbutton operation keeps everything simple...just push the record and play buttons and watch the LED indicators indicating which mode you're in. It's that simple! Runs on 12 VDC. For that truly professional look, add our matching case and knob set (5" w x 1 1/2" h x 5 1/4" d). If your pitch is getting deep...you better order the BS1 today!

BS1 Bullshooter Endless Voice Storage Recorder Kit
CBS Matching Case & Knob Set for BS1
BS1WT Factory Assembled & Tested BS1, with Case and Matching Knob Set
AC125 12 VDC AC Power Adapter

\$99.95
\$14.95
\$149.95
\$9.95

GREAT IDEA!
Use this with our FM Transmitters on Page 4 for Automatic Announcements!



Light Beam Communicator

Send your audio over a beam of light!

- Send your voice over light – even through windows!
- 30' to ¼ mile range
- Receiver drives a speaker or earphone

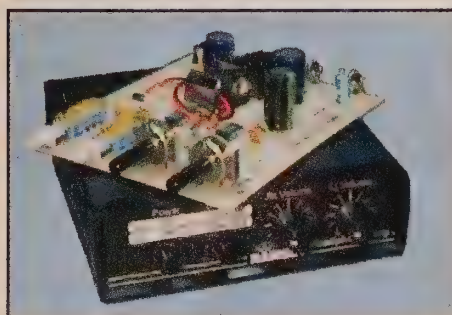
Transmits a modulated infra-red light beam up to 30 feet without lenses, up to ¼ mile using simple lenses. Since the beam is modulated with a 30 KHz carrier (like AM radio) there is no effect from 60 Hz hum that is produced by indoor lighting. Easily transmits through windows – ideal for “bugs” or listening to IR television remote controls. The transmitter

can use any type of mike and is very sensitive. The receiver employs an IR PIN diode detector and there is enough power to drive any loudspeaker or earphone. The PC board is cleverly “scored” so you can easily separate the Transmit and Receive sections so they can be used individually to transmit at one location and receive at another. Units run on 9 to 12 VDC. Don't forget our slick matching case set with red IR end panel.



LB56 Light Beam Communicator Kit
CLB Matching Case & Knob Set for LB56
AC125 12 VDC AC Power Adapter

\$19.95
\$14.95
\$9.95



Stereo Headphone Amplifier

Listen to line level outputs on stereo equipment with standard headphones!

- Use with CD players, tuners, mixers
- Great as a basic preamp for any line level signal

Wired & Tested



DID YOU KNOW?

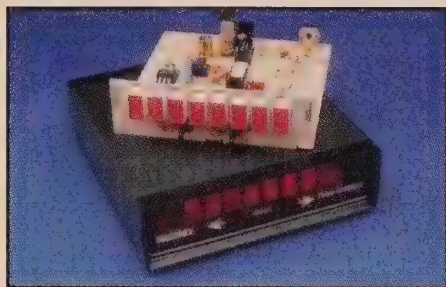
A leading high-end radio manufacturer recommends this for all their customers who call to use headphones! That's why we now offer it factory assembled!

Here's a handy little kit that you'll find yourself using all the time. How many times have you wanted to listen or monitor the line-level outputs from your CD player, mixer or tape deck? Most good quality gear lacks an earphone output or if there is one, it is woefully poor quality. We developed this kit to help us listen to our mixers, reverbs, voice recorders and other audio goodies. We took a pair of LM386 250 mW audio amplifiers, added volume controls, power supply and a handy, switchable, high-cut filter.

A common ¼" stereo earphone jack is used for the output – assuring compatibility with all stereo headphones – and RCA phono jacks accept standard line level input signals. There's plenty of volume and of course, the “Fi” is quite “Hi”. Available in money saving kit form or fully wired and tested. Kit builders, don't forget our snazzy matching case set for a nice finished look. Runs on 9 to 15 VDC.

SHA1 Stereo Headphone Amplifier Kit
CSHA Matching Case & Knob Set for SHA1
SHA1WT Factory Assembled & Tested SHA1 with Case & Knob Set
AC125 12 VDC AC Power Adapter

\$19.95
\$14.95
\$39.95
\$9.95

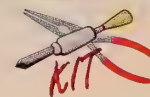


Tone-Grabber Touch Tone Reader

Grab touch-tone numbers right off the air!

- Large memory holds up to 256 numbers
- Can scroll through memory backwards and forwards
- Big, bold 8-digit display with automatic insertion of dashes between number groups for easy readability
- Super fast to capture numbers off the radio, repeater, phone line, or decoded transmissions

Wired & Tested



Dialed phone numbers, repeater codes, control codes, anywhere touch-tones are used, your TG1 will decode and store any number it hears. A simple hook-up to any radio speaker or phone line is all that is required, and since the TG1 uses a central office quality decoder and microprocessor, it will decode digits at virtually any speed! A 256-digit non-volatile memory stores numbers for 100 years – even with the power turned off, and an 8-digit LED display allows you to scroll through anywhere in memory. To make it easy to pick out numbers and codes, a dash is inserted between any group or set of numbers that were decoded more than 2 seconds apart.

The TG1 runs on any 7 to 15 volt DC power source and is both voltage regulated

and crystal controlled for the ultimate in stability. For stand-alone use add our matching case set.

We have a TG1 connected up here at the Ramsey factory on the FM radio. It's fun to see the phone numbers that are dialed on the morning radio show! Although the TG1 requires less than an evening to assemble (and is fun to build, too!), we offer the TG1 fully wired and tested in matching case for a special price. Optional case for kit size 5" w x 1½" h x 5¼" d.

TG1 Tone-Grabber Touch Tone Reader Kit
CTG Matching Case & Knob Set for TG1
TG1WT Factory Assembled & Tested TG1, with Case and Matching Knob Set
AC125 12 VDC AC Power Adapter

\$99.95
\$14.95
\$149.95
\$9.95

Shortwave Receiver

The ideal "Beginners SWL Receiver"!

- Tunable over 2 MHz bandwidth anywhere in the 4 to 19.5 MHz shortwave band
- Clean superheterodyne design with automatic gain control
- Extremely sensitive front end works with a wide range of antennas for worldwide reception

Here's a complete shortwave radio guaranteed to inspire awe in any listener. Imagine tuning in the BBC, Radio Moscow, Radio Baghdad and other services with just a few feet of antenna. This very sensitive (about 2 microvolts!) receiver is a true superhet design with AGC and plenty of speaker volume. Smooth varactor diode tuning allows you to tune any 2 MHz portion of the 4 to 20 MHz frequency range, and the kit con-

veniently runs on a 9 volt battery (not included). Add our matching custom case and knob set to give your radio a finished, polished look. Amaze yourself and others — see how you can listen to the world on a receiver you built in an evening. Drives any speaker or earphone. Optional case size: 5"w x 5 1/4"d x 1 1/2"h.



SR2 Shortwave Receiver Kit
CSWR Matching Case & Knob Set for SR2

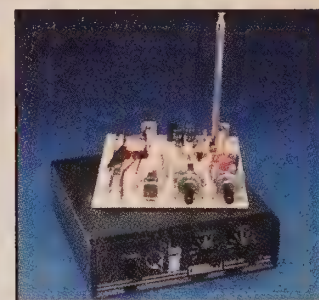
\$29.95
\$14.95

FM Broadcast Band Receiver

Perfect for tuning "Out-of-Band"

- Standard FM receiver, with larger tuning range of 70 to 110 MHz
- Ideal for FM wireless mikes, SCA programming, or just normal FM broadcasts
- Demodulated audio output for driving our SCA1 decoder

Ideal for standard FM broadcast band as well as large portions on each side, making it great for bug monitoring or detection and receiving SCA broadcasts. Features one microvolt sensitivity, 10.7 MHz IF, 250 mW audio output, varactor diode tuning, IC FM detector chip, demod output to drive our SCA1 decoder and operates on 9 VDC battery (not included). Drives any 4-45 ohm external speaker. Add our handsome matching case, knob and antenna set for a nice finished look. Optional case size: 5"w x 5 1/4"d x 1 1/2"h.



FR1 FM Broadcast Band Receiver Kit
CRR Matching Case & Knob Set for FR1

\$24.95
\$14.95

WWV Time Receiver

Crystal controlled WWV reception!



What time is it? This quality WWV receiver is designed to receive the 10 MHz National Institute of Standards (NIST) atomic clock — the sole time standard for the Planet! Very sensitive receiver needs only a few feet of wire to pick up WWV, utilizes unique Log/Antilog detector circuitry for super easy assembly, alignment and operation. Detailed manual teaches theory of receiving systems — you'll be an expert after building this baby — and it

- Receives 10 MHz WWV transmissions
- The world's time standard at your fingertips!
- Built-in speaker plus audio output jack
- Super easy assembly with no tuning required

only takes a few hours! Believe it or not, no tuning is required for operation! Runs on 9 volt battery, includes speaker, too. Crystal included for 10 MHz reception, change the crystal to receive other frequencies in the 5-15 MHz range. Don't forget to add our snazzy matching case set for a nice completed look. Anybody got the time?



HFR1 WWV Shortwave Receiver Kit
CHFR1 Matching Case & Knob Set for HFR1

\$34.95
\$14.95

Aircraft Receiver

From Kit Planes magazine... "Puts you in the pilot's seat"!

- Picks-up aircraft, control towers, and approach/departure radar control
- Tunes entire 118 MHz to 136 MHz aircraft band
- Automatic gain control and squelch makes for pleasant listening

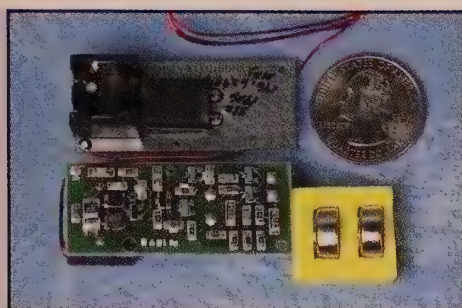
Tune into the exciting world of aviation. Listen to the airlines, big business corporate jets, hotshot military pilots, local private pilots, control towers, approach and departure radar control, and other interesting and fascinating air-band communications. You'll hear planes up to a hundred miles away as well as all local traffic.

The AR1 features smooth varactor tuning of the entire air band from 118 to 136 MHz, effective AGC, superheterodyne circuitry, squelch, convenient 9 volt operation and plenty of speaker volume. Don't forget to add our matching case and knob set for a fine looking project you'll love to show. Our detailed instruction manual makes the AR1 an ideal introduction to two life-long fascinating hobbies at once — electronics and aviation! Operates on 9 VDC battery (not included). Use with any speaker or earphone. Optional case 5"w x 1 1/2"h x 5 1/4"d.



AR1 Aircraft Receiver Kit
CAR Matching Case & Knob Set for AR1

\$29.95
\$14.95



Model Rocket Tracking and Telemetry Transmitter

NEW!

Super stable with NO frequency drift!

- Easily track your rocket using a scanner receiver!
- Crystal controlled – no frequency drift!
- FM transmission!
- Subminiature SMT construction to fit any application!



Wired & Tested

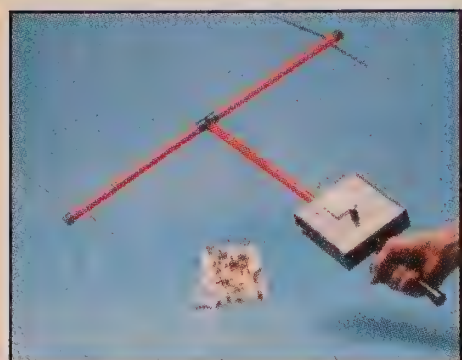
The sky's the limit for this super stable, drift free transmitter! Most low cost transmitters are tunable and subject to frequency drift when subjected to temperature variations and vibration, etc. The MR6 frequency is set by a crystal to a frequency in the 2 meter Ham band of approximately 146.535 MHz, easily picked up on any scanner radio or 2 meter rig. Changing the crystal allows you to change frequency anywhere in the 140 to 160 MHz range, and crystals cost only five or six dollars. The telemetry/data input on the MR6 will accept any audio frequency telemetry source from your

applications sensors. Transmission range is approximately 1/4 mile line of site. The MR6 uses the latest in SMT surface mount technology and parts, so if you want to learn more about SMT, this is the kit for you! Don't be afraid of losing those small parts, we even include a few extras just in case you sneeze and lose a part! Power is supplied by 3 volt Lithium camera battery or a pair of watch batteries which are included.

MR6 Model Rocket Tracking Transmitter Kit
MR6WT Factory Assembled & Tested MR6

\$39.95

\$69.95



Foxhound Direction Finder

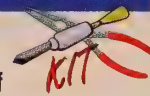
Track down those hidden or unknown transmitters!

- Pin diode switching of antennas, coupled with filters, determine direction of source signal and is indicated by a pair of LEDs
- Sensitive metering allows easy "zeroing-in" on transmitter!

The Foxhound connects to any radio, through the speaker jack and antenna connector and will allow you to easily zero in on the exact direction of an unknown transmitter, be it aircraft, two-way radio, ham or even TV. The Foxhound uses a pair of telescopic whip antennas which are manually turned (by you!) until the sensitive meter indicates the lowest reading.

The antennas are alternately switched on and off using PIN diodes. The outputs are then passed thru a high-Q audio filter and synchronously detected for phase shift. A pair of LEDs tell you in which direction you should rotate the antennas – to the right or left.

We provide the telescopic whip antennas and ask you to provide a two foot long "boom" on which to mount them. As an added feature, we've included an automatic T-R switch! The T-R switch is ideal for handie-talkie usage. If you wish to transmit with your radio – go ahead, the Foxhound will sense your transmitter power and automatically switch itself out of the circuit while you talk. Be the one with the answers, win those transmitter hunts, track down the jammers, you'll do it all with your Foxhound! Operates on internal 9 volt battery or 12 VDC, via a 2.1 mm female power jack.



Here's Mr. Ed looking for that company that copies all our kits!

DF1 Foxhound Direction Finder Kit
CDF Matching Case & Knob Set for DF1
AC125 12 VDC AC Power Adapter

\$59.95

\$14.95

\$9.95



Treasure Finder Kit

Find that treasure with professional results!

- Find a quarter up to six inches deep!
- Both speaker and earphone output so the crowd watching won't know you've found Capt Hook's treasure!
- Fun at the park and beach
- Also great for locating underground pipes and cables in walls

Search for buried treasure at the beach, backyard, or park. This professional quality kit can detect metal at a depth of up to 6 inches. Easy to use, just listen for the change in tone as you "sweep" the unit across the surface – the larger the tone change – the larger the object. Has built-in speaker or earphone connection, runs on standard 9 volt battery. For best searching through soil, we've optimized the transmission fre-

quency for best ground penetration. Complete kit includes handsome case, rugged PVC handle assembly that "breaks down" for easy transportation and heavy copper shielded Faraday search coil. Easy one evening assembly. This nifty kit will literally pay for itself! That guy in the picture looks like he found something – what do you think it is?



TF1 Treasure Finder Kit

\$59.95

Personal Speed Radar

YOU be the cop! How fast was he really going???

- Direct readout in miles/hour, kilometers/hour or feet/second
- 1/4 mile range for average car-sized object
- Earphone output to hear actual Doppler shift
- The nation's #1 science fair project!



GREAT IDEA!

The PERFECT kit to learn the fundamentals of Radar theory!

Here's a kit that's not only tons of fun for everyone, but useful too! This low cost microwave radar uses the same principle found in police units costing thousands more. You'll turn heads when you clock cars, planes, runners, boats, horses, bikes, races or virtually anything that moves. Speed readout is on two LED displays which can be set accurately (better than 1%) to show MPH, kilometers-per-hour, or even feet-per-second. An earphone output allows you to actually hear the Doppler frequency shift of moving objects – the theory upon which all radars operate. Uses two 13 oz. coffee or juice cans for antenna (not included)...so start drinking! Antenna unit can be remoted up to 300 feet away.

The SG7 is easy and informative to build. Our detailed manual not only carefully guides you to a finished unit, but tells you the hows and whys on how radar works. Even though the kit employs microwave circuitry, no exotic tuning is needed. All critical sections are PCB stripline and calibration is as easy as pointing the SG7 at a fluorescent lamp! Your Speedy kit includes a deluxe black ABS plastic case with SPEEDY graphics for a neat professional look. Operates on 12 VDC. Electronics case: 3 5/8" x 5 3/4" x 1 1/8".



SG7 Speedy Personal Speed Radar Gun Kit
AC125 12 VDC AC Power Adapter

\$99.95
\$9.95

Cable Wizard Cable Tracer

The wireless cable tracer!

- Locate and identify any cable – telephone pairs, ethernet, coax or even your doorbell!
- Find that ONE cable in the bundle QUICK!

Did you ever have to identify the "other end" of that cable? Well up to now you had to ohm it out, cable by cable. Now with the Cable Wizard you can quickly identify that cable without even touching the other end! Simply connect the Wizard transmitter to the one end of the cable you're working with. Then use the receiver to sniff out the other end of the cable, whether it's close to you...or at the other end of the building. The transmitter sends a pulsating 2 KHz sig-

nal down the cable which is heard in the receiver when you're close to the cable. It doesn't get much simpler! The transmitter is equipped with a standard RJ45 telco connector for standard 2, 4, 6 and 8 pair connectors and insulated clip-on leads. The WCT20 includes the transmitter and receiver units. Each is powered by a standard 9 VDC battery.



Wired & Tested

WCT20 Wireless Cable Tracer Kit
CWCT Matching Case Set for Transmitter & Receiver
WCT20WT Factory Assembled & Tested WCT20

\$39.95
\$29.95
\$99.95



Dr. Ni-Cad Nicad Battery Conditioner/Fast Charger

Rejuvenate and add life to those NiCads!

- Unique discharge before charge circuitry eliminates "memory effect"
- Full charge in under an hour!
- Safety first circuit with built-in timers and voltage sensors prevent damaging batteries
- Quick charge switches to "top-off" mode automatically at optimum point in charge cycle

Wired & Tested



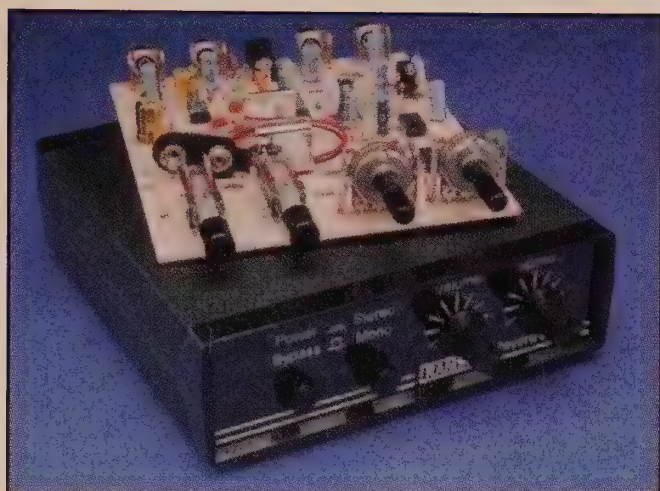
Quit spending big bucks for replacement battery packs. Rejuvenate and condition your batteries for peak capacity. Advanced circuitry has optimized discharge-before-charge to eliminate memory effect and to condition batteries that have been poorly cared for in the past. Quick charge rapidly brings battery to full charge in less than 1 hour, just 15 minutes for some types! And "top-off" charge mode squeezes every last bit of energy into each cell for the absolute maximum capacity. Switch-mode regulator controls constant current charge while being monitored by a negative delta-V system that cuts off the fast charge at the exact point of full charge...batteries are charged, not cooked! Charges

NiCads or NiMH packs from 2 to 10 cells (easily expanded) and current capacities up to 10 Amp-hours. Runs on 12 to 15 VDC at up to 1.5A (depends upon charge rate selected). Quit cooking your batteries, buying new packs, or waiting hours for recharge. Get Dr. Ni-Cad today! Available in money saving kit form or wired and tested with case at a special price. Kit builders: add our matching case for a snazzy finish, size: 5 1/4" x 5 1/4" x 1 1/2".

DN1 Dr. NiCad Battery Conditioner and Fast Charger Kit
CDN Matching Case & Knob Set for DN1
DN1WT Factory Assembled & Tested DN1, with Matching Case and Knob Set

\$49.95
\$14.95
\$89.95





Reverb Effects & Surround Sound Kit

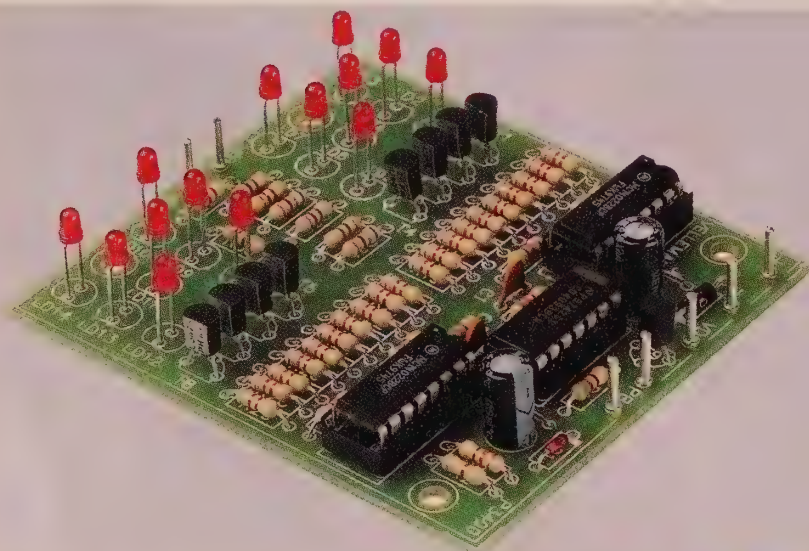
Must be heard! Similar to the Fosgate surround sound field system at a fraction of the cost!



Wired & Tested

The latest high-tech circuitry is used in the RV1. The audio delay is produced in a "Bucket Brigade Device" or BBD. A BBD functions exactly as the name implies; audio sound is sampled into small bits and passed along a brigade until it reaches the output. By varying a clock signal we can vary the length of time it takes for the signal to reach the end. Delay is adjustable from zero to 1/2 second and there are controls for volume, delay rate, decay time and reverb duration. The RV1 connects easily to microphones or audio line level signals and there's even an on-board amp that can drive a small speaker! Power is supplied by a standard 9 volt battery (not included) or externally thru a 2.1 mm male power jack. Add the optional matching case set for a nice finished look. Optional case size 5"w x 1 1/2"h x 5 1/4"d.

RV1	Reverb & Surround Sound Kit	\$59.95
CRV1	Matching Case & Knob Set for RV1	\$14.95
RV1WT	Factory Assembled & Tested RV1, with Case & Knob Set	\$89.95
AC125	12 VDC AC Power Adapter	\$9.95



Dual Electronic Dice

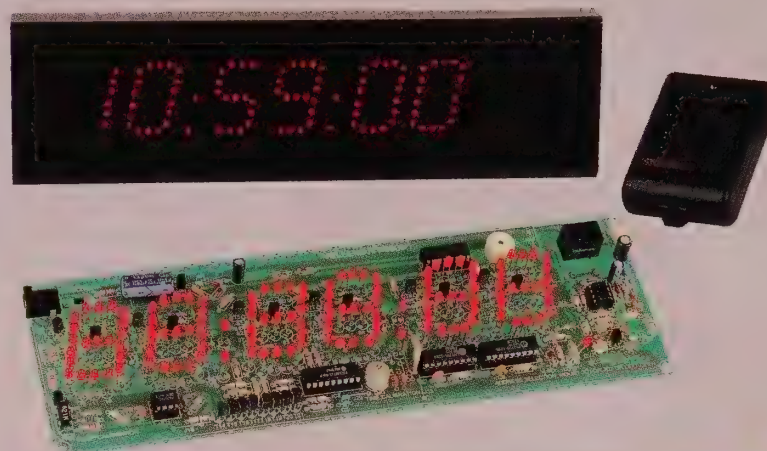
Roll the dice!

Think about it. There are lots of games you play with dice...Monopoly, Parcheesi, Trivial Pursuit, even Dice! If there's anything more fun than rolling dice, it's building your own electronic dice, and using them when you play. They don't make any noise, they don't fall off the table or roll under the couch, you can see them in the dark...Everybody should have a set.

Two totally independent LED dice, you can play with either one or two. 9 VDC power. Size: 3" x 2 3/4".

K3400 Dual Electronic Dice Kit

\$19.95



The Everything Kit

It's a clock, a calendar, a scoreboard, a thermometer, and that's not all!

There's a lot you can do with this kit. With its 6 x 1.4" LED digits, not only does it tell the time, it also tells the date. It can count down the time to a specific date (retirement, schools out, wedding, etc.), it can display the temperature from -20 to + 70°C (or the equivalent in °F). It generates random numbers from 1 to 99, it does a dice thing, it's a chronometer with a lap function. It is a two player/team scoreboard which counts up to 199. It has a relay output (1A/24V max.) for either temperature or time alarm.

If that wasn't enough, it has a keychain remote control which is included, and memory backup with a 9V battery. Order a second remote so teams can keep their own score. Add the case for a finished look, build it into your own housing, or leave it "naked" if you like the circuit board look. This is a cool kit! PCB is 10" x 3.1", power supply is 12 VDC.

K8009	The Everything Kit	\$89.95
C8009	Case for Everything Kit	\$14.95
AC125	12 VDC Adapter	\$9.95
KCREM	Extra Keychain Remote	\$19.95

Visit us on the Web!
www.ramseykits.com

Gas Leak Detector Kits



NEW!

Do you smell gas? This useful new kit detects a wide variety of toxic and combustible gasses. Monitor home heaters or furnace area, the bilge of your boat, your RV propane delivery system, etc. Available in two versions, one is an alarm only, the second includes a dry contact relay for activating external alarms, blowers, etc. The relay is rated for 0.6A AC @ 125V, or 2A DC @ 30V.

The unit employs a Tin dioxide (solid state) sensor, and is sensitive enough to detect as little as 50 ppm of Methane (1/1000th of the explosive limit). Of course the sensitivity is user adjustable. It also senses Butane, Acetylene, SO₂, and dozens of other gases

long before their concentration reaches toxic or explosive levels. Sensor life is typically five years or more, response time is typically less than one second. The alarm signal is a blinking red light as well as a loud intermittent audio tone.

Fully assembled, the detector is only 3.25" x 3.25" x 1" – small enough for inconspicuous mounting. It can be powered by 7.5 to 12 VDC, so you can use batteries, a wall transformer, or it can be connected to your vehicle power supply for RV or boat use. We do not offer a case for this kit, suitable enclosures can be picked up at any electronic supply store.



GLD1000	Gas Leak Detector Kit
GLD1010	Gas Leak Detector Kit with Relay
AC125A	12 VDC Power Adapter

\$29.95
\$39.95
\$9.95

Rat Blaster Varmint Repeller

Eliminate them without harm!

- Covers over 3,000 square feet
- Programmable frequencies for optimum repulsion
- Compare with units costing \$150



Sure, you've seen these things advertised before. Big claims and a huge price, well we won't carry on about how you'll be able to keep Godzilla out of your garbage cans, but we will say this unit will do a nice job of keeping the neighborhood dog, cat or deer away. Here's the story, we had a problem at the boss's house keeping the deer out of the garden. The boss, being the electronic nut he is, bought one of these things and tried it. It worked pretty good so he figured to get another for protecting

the shrubs, but at \$150 a box, figured he could build his own cheaper. Here it is, cheaper and better! We've increased the power, put in a top-quality transducer (by Motorola), better frequency range and made it affordable. Build it into your own case or use our rugged, all metal matching case set. Runs on 12 VDC or use our AC adapter. (H-m-m-m, I wonder if this will work on kids!)

RB1	Rat Blaster Rodent and Animal Repeller Kit
CRB	Matching Case & Knob Set for RB1
AC125	12 VDC AC Power Adapter

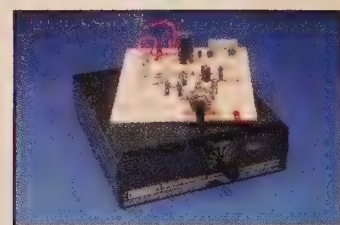
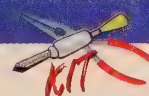
\$49.95
\$29.95
\$9.95

Microwave Motion Detector

Detect motion...with microwaves!

The unit sends out a microwave signal and looks for a return; a moving object will reflect back some microwave energy and the kit detects it. Since microwaves (no, you won't get cooked or burned by them!) are used – heat, light, sound or vibration will not affect the sensor. This makes it ideal for car and home alarms, outdoor and garage light operators, animal in-your-garbage alarms, and tons more ideas limited only by your imagination. The MD3 is a great introduction to the basic principles of our "Speedy" Personal Speed

Radar and you can use it to investigate the properties of microwaves. Kit includes detailed instructions, theory of operation and lots of applications and hook-ups. Runs on 9 to 15 VDC. For a rugged and attractive package, choose our matching case and knob set. Case size: 5"w x 1½"h x 5¼"d.



MD3	Microwave Motion Detector Kit
CMD	Matching Case & Knob Set for MD3

\$19.95
\$14.95

Voice Switch

Automatic VOX!

- Directly switches relays or low voltage loads up to 100 mA
- Use your voice or noise to control!

Voice activated switch (VOX) kit will provide a switched output when it "hears" sound. Use it to key a transmitter for hands-free

PTT, or turn on a tape recorder automatically when people are talking in a room. Kit runs on 6 to 12 VDC and drives up to a 100 mA load such as a relay, tape recorder motor, or transmitter key line. Size: 2½" x 1½" x 1¼".



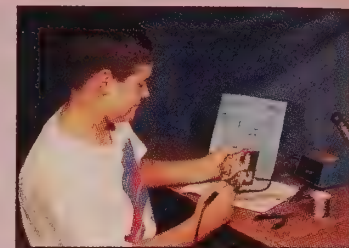
VS1	Voice Activated Switch Kit
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\$6.95

Mini-Kits...Fast, Easy, and FUN!!!

Ramsey Mini-Kits are handy, easy-to-build, easy-to-use functional kits that can be used alone or as building blocks in larger, more complex designs. Mini-kits have been used in projects as simple as blinking name badges or as complex as Radio Astronomy

Telescopes. Consider these capable little kits the next time you build. In fact, it pays to have an assortment handy in the shop for rainy day enjoyment or convenient on-hand project "blocks."



Code Practice Oscillator

Learn the code!

- Great starter kit
- Ideal for Boy Scouts
- Increase your code speed – practice anywhere!

Looking for a great starter kit to spark the interest of your future engineer? This little code practice oscillator is easy to build, easy to use, and features an audio tone adjustment for your listening pleasure. Using the ever popular 555 timer chip and the straight key paddle you are in full control of the output tone length and pitch. Handy 9 VDC battery operation insures hours of enjoyment and the chance to practice your CW code anywhere you go. Size: 3 1/2" x 1 1/2" x 3/4". Battery not included.



Universal Timer

IC Switching...\$9.00!

- Use as a Timer or Oscillator
- Ideal for code practice
- Triggered by positive or negative pulses

Add a time delay, keep something on for a preset time, provide timing or clock pulses, or provide an audio oscillator for tones or code practice. This little kit does it all using the 555 timer chip and adding negative or positive pulse triggering and on-board timing pots and capacitors...We give you complete instructions on how to apply this timer to your project! Runs on 5 to 15 VDC and controls loads up to 100 mA. Size: 1 1/4" x 3/4" x 1 3/4".



Warble Alarm

The Mad Blaster!

- Loud and clear with 15 watts of power!
- Drives any speaker

Need to break a lease, cause trouble or just plain get attention? The mad blaster is the answer, producing a LOUD, ear shattering, raucous racket. Super for car and home alarms, ball games, or any place where attention is needed fast. Runs on 9 to 12 VDC and drives any type of speaker, although a horn type speaker is the most efficient and will give the most racket. Size: 1 1/8" x 1 1/4" x 1/2".



CPO3 Code Practice Oscillator

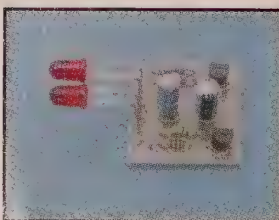
\$9.95

UT5 Universal Timer Kit

\$8.95

MB1 Warble Alarm Kit

\$4.95



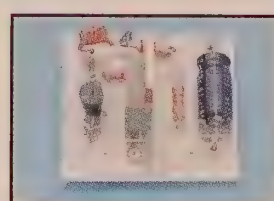
LED Blinky

Great starter kit!

- Ideal starter kit to spark a child's interest
- Hundreds of applications...model railroads, hats, badges, toys, etc.



Alternately flashes two jumbo red LEDs; this is the kit you've seen on name badges, buttons, hats and toys. But, there's more to it than that, add a couple of relays, Christmas light strings and you've got yourself a super light chaser just like the theater marquee, or add a zener diode and make an attention getting overvoltage warning light. Kit runs on 3 to 15 VDC (not included).



Electronic Siren

Just like a police siren!

- Drives any speaker
- Duplicates the wail of a police siren



Look out, here come the cops! Nope, only you and this siren kit. The SM3 siren exactly duplicates the upward and downward wail of a police siren. Runs on 6 to 12 VDC and is a loud 5 watts. Drives any speaker, but a horn type gives best results. Surprise your kids, or wife – if you live dangerously.

BL1 LED Blinky Kit

\$3.95

SM3 Electronic Siren Kit

\$3.95



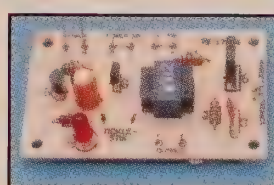
Super Snoop Amplifier

Super high gain!

- Booster amps for radios, Walkmans, etc.
- High sensitivity long distance listening
- Choice of gain...either 50 or 3000!
- Powerful 2 Watt audio output



Here's a super sensitive amplifier that will pick up a pin drop at 15 feet! An ideal general purpose amplifier, too. Full 2 watts audio output is great for boosting low power receivers and radios, and when wired for high gain, makes an excellent room monitor or big ear shotgun mike amp...easy to listen in on "wild-life" both in the field and in the city! Recommended to be powered by a 6 to 15 VDC filtered power supply rated for at least 50mA or batteries, drives any speaker. Size: 1 1/2" x 1 1/2" x 1 1/2".



Tickle-Stick

Get the shock of your life!

- Small enough to fit in the palm of your hand, but unlikely you'll hold this after building it
- Easy way to establish territorial limits for friends, foes, even pets...



Tickle or stimulator – take your pick...once you grab it, you'll let go quick!!! Mount this little kit, plus a secret switch – like a mercury tilt switch – in an ingenious can or box and watch the fun. Adding a bright ribbon bow is remarkably effective at baiting the unwary! The kit has a pulsing 80 volt tickle output and a mischievous blinking LED, and who can resist a blinking light. Great fun for your desk, "Hey, I told you not to touch!" workbench, or coffee table. Runs on 3 to 6 VDC (not included). This kit has become a fixture at our Hamfest displays, providing us, and others who are in the know, hours of fun. Size: 1 1/2" x 3/4" x 2 1/2".

BN9 Super Snoop Amplifier Kit

\$8.95

TS4 Tickle Stick Kit

\$9.95

RF Wireless Link Modules

A transmitter smaller than a quarter!

- SAW Resonators for high stability – NO Drift!
- Powerful +10 dbm output
- Range up to 600'
- 433 MHz license-free band
- Sensitive superhet receiver with RF LNA
- Stable over full 3–12 VDC range
- Optional on-board 12 bit encoder/decoder using Holtek HT12 series chips

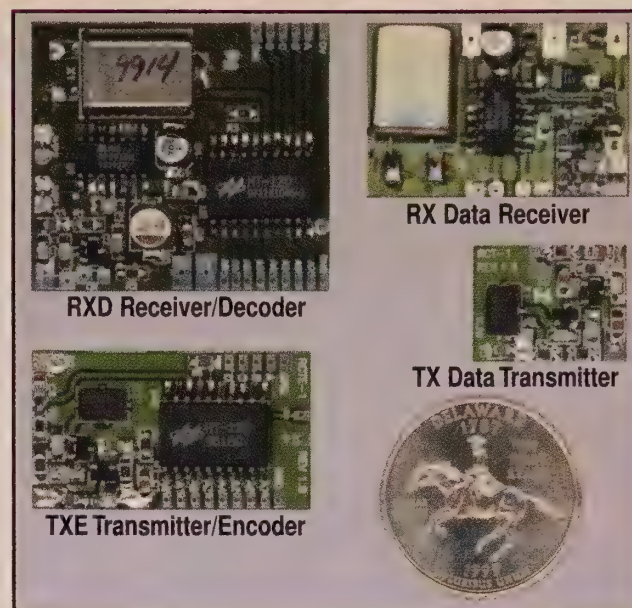
GREAT IDEA!

Use the RF Link Modules
for Wireless Data
Reporting!

Wired & Tested

Now you can build those special remote control projects in a breeze, and have the ultimate in reliability...and security! These wireless RF link boards are perfect for any wireless control application—car alarms, door openers, home security, electronic monitoring...you name it. Monitor a test point or an alarm point on a circuit, and have it alert you remotely! The applications are endless. The compact size and low current demands make these perfect for any project! Optional encoder/decoder models add security and allow multiple devices on the same frequency — no need for complicated changes or reprogramming! All modules are pre-assembled and tested so you can start your project today!

RXD433	433 MHz Receiver/Decoder Module, Assembled	\$26.95
TXE433	433 MHz Transmitter/Encoder Module, Assembled	\$24.95
RX433	433 MHz Data Receiver Module, Assembled	\$21.95
TX433	433 MHz Data Transmitter Module, Assembled	\$19.95



Tone Encoder/Decoder

40 Hz to 5 KHz!

- Encodes and Decodes
- Tunable from 40 Hz to 5000 Hz (extendible down to 10 Hz)
- Drives any load up to 100 mA



All your tone control needs on a single PC board. Kit will simultaneously decode and/or encode any frequency from 40 to 5000 Hz, (add a small capacitor to go down as low as 40 Hz) Great for PL tones, remote controls, tone burst FSK, anywhere tones are involved. Frequency is easily set with the precision 20 turn trimpot, and the circuit uses a voltage regulator and Mylar cap for the ultimate in stability. Runs on 5 to 12 VDC, will drive up to 100 mA load. Size: 1 1/4" x 1 1/2" x 1 1/2".

TD1 Tone Encoder/Decoder Kit \$6.95

Visit us on the Web!

www.ramseykits.com

Touch-Tone Decoder

Great for remote tone control!

- Decodes DTMF Touch Tones from telephone, radio, etc.
- 20 mA output drives relays, LEDs, digital devices, etc.
- Telco central office quality decoder – Stable crystal control
- Decodes 0 thru 9, *, #, plus A, B, C, D



You can strap the TT7 for detection of any single digit, including the secondary A,B,C,D digits. When the decoder detects the selected digit it will provide a closure to ground for driving a relay, lamp, sounder, or other such load of up to 20 mA. A commercial central office quality decoder IC chip is used, making the TT7 extremely reliable, fast and sensitive. You may connect the TT7 directly across the speaker or detector output on any receiver, and in fact, we even detail how it may be connected directly to a telephone line. If your needs are simply single function remote tone control, the TT7 is for you. (For digital display of dialed touch-tone numbers, use our TG1 Tone Grabber on page 15). Runs on 5 VDC. Size: 1 1/2" x 7/8" x 2 1/4".

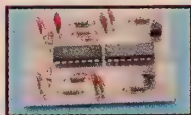
TT7 Touch Tone Decoder Kit \$29.95

Touch Switch

2 separate circuits!

- Drives loads up to 100 mA
- Two independent touch switch circuits

Touch once — it's on, touch again — it's off, or use the momentary outputs that stay on only as long as touched. Uses low power CMOS circuitry and functions on the principle of hum and noise pick-up when input is touched. Will drive loads up to 100 mA such as relay, bell, siren, etc., runs on 6 to 12 VDC, kit includes info on using as a key for CW keyers. And...there are two completely independent touch switch units on each kit PC board, it's like getting 2 for 1!



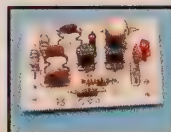
TS1 Touch Switch Kit \$6.95

RF Preamp

Broadband!

- Broadband...from 100 KHz to 1000 MHz!
- High Gain: > 20 db Low noise < 4dB!
- Improves AM, FM, VHF TV, UHF TV, and HF reception

This is the famous preamp that's been written up in all the radio and electronics magazines. New low-cost microwave transistors make it possible to give performance unheard of a few years ago! Runs on 12 to 15 volts at 15 mA, has 50 to 75 ohm impedance and is unconditionally stable. 1" w x 3/8" h x 1 1/2" d.

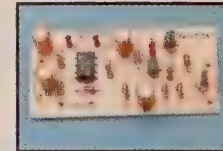


SA7 RF Preamp Kit \$14.95

RF Actuated Relay

- Can switch up to 100 watts of RF power or 1 Amp DC

This is the unit you need when adding a preamp or power amp in line with an existing antenna. It senses the RF power and closes an on board DPDT relay which can be used to automatically switch in your added power amp or preamp. The relay is good up to UHF -100W! Many folks use one of these "lifesavers" in front of their expensive test equipment. Runs on 10 to 15 VDC. Senses power as low as 50 mW. Size: 1 1/2" x 1 1/2" x 4".

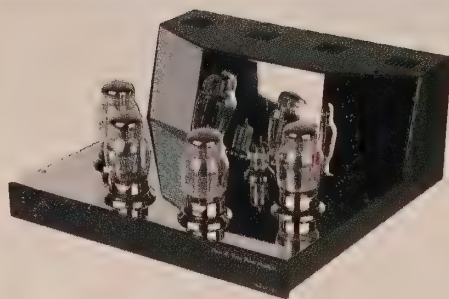


RFS1 RF Relay Kit \$14.95

The True Audiophile's Dream...At a Hobbyist's Price!!!

Many audiophiles feel that nothing equals the sound quality produced by a tube amplifier. Many also like to see the warm glow of the tubes. Of course there is another camp that prefers solid-state designs. Either way, the choice is purely based on your personal taste. The highest end systems are typically assembled with separate components for pre-amplifier, power amplifier(s), and tuner. They are always sold through specialty retailers (never through the big chains); it's not uncommon for such a system to cost in excess of \$10,000.00.

If you've never listened to a top end stereo, you don't know what you're missing! Go to the highest end audio store you can find, learn about the components, listen to a system, price it out, and then call us! Ramsey Electronics now offers Class A audio components in both kit and assembled form. Experience the enjoyment of kit building, and the pride of owning and displaying some of the world's finest audio equipment. We can save you thousands of dollars, but best of all you'll have the daily pleasure of listening to a to-die-for stereo. And turn up the volume — there's no background noise, no clipping, and no distortion!



65W Pure Class A Tube Power Amplifier

The ultimate in quality!

- Pure CLASS A valve sound with high-quality KT88 valves
- Easy bias adjustments with LED indication
- Detachable bottom for easy access and servicing
- Gold-plated input and speaker terminals
- Soft-start circuit for power transformer
- Sensitivity adjustment for exact matching of two mono amps

This single channel tube amp delivers up to 65 watts of pure class A power through 4 KT88 output pentodes. Absolute top quality components have been used throughout, including custom made ultra linear toroidal output and power transformers. The RCA input jack and heavy-duty speaker output terminals are gold plated. A soft start circuit prevents fuse tripping at power-up.

The case has been designed with a reflective chrome base and back to showcase the tubes. It will look impressive in your "media room."

SPECIFICATIONS

Output power:	65W RMS class A into 4 or 8 ohms
Frequency range:	8 Hz to 80 KHz (-3dB/1W)
Harmonic distortion:	0.1% @ 1W/1 KHz
Signal/noise ratio:	-110 dB
Supply voltage:	100, 120, 230, 245 VAC
Power consumption:	300 VA Max
Size:	14.2" x 14.2" x 6.3"



Wired & Tested

K8010
W8010

65W Mono Tube Amplifier Kit
Factory Assembled & Tested K8010 Amplifier

\$1,099.00

\$1,199.00



Stereo 2 x 90W Tube Power Amplifier

Bringing true valve quality to your budget!

- Pure valve sound with high quality EL34 valves
- High quality black and chrome housing
- Chrome valve socket covers
- Easy bias adjustment with LED indication
- Soft start circuit for power transformer

If you want the pure sound of tubes, but can't swing \$1,000 plus per channel, consider the K4040. It delivers pure tube sound through 4 x EL34 tubes per channel. Like the 8010, highest quality components including overrated and ultra linear toroidal transformers have been used (reproducing rich low bass draws a lot of current). To prolong the life of the expensive tubes, the amplifier incorporates a switch on delay, applying high voltage to the tubes only when they have warmed up. Like the model 8010, the case has been designed with a reflective chrome base and back, and chrome plated tube base cover rings to make an impressive display.

SPECIFICATIONS

Output power:	2 x 90W RMS into 4 or 8 ohms
Power bandwidth:	15 Hz to 40 KHz
Frequency range:	8 Hz to 80 KHz (-3 dB/1W)
Harmonic distortion:	0.08% 1 KHz@ 1W, 0.7% 1 KHz
Signal/noise ratio:	-105 dB
Channel separation:	75 dB
Supply voltage:	100, 120, 230, 245 VAC
Size:	16.75" x 13.75" x 5.2"



Wired & Tested

K4040
4040WT

2 x 90W Stereo Tube Amplifier Kit
Factory Assembled & Tested K4040 Amplifier

\$999.00

\$1,299.00

Stereo Tube Control Amplifier

The ultimate match to your amplifier!

- Exclusive, high finish, solid aluminum enclosure
- High quality ALPS volume potentiometer
- Full valve design
- Auto muting (warm up) at power on
- Highly reliable reed relay input selection
- Regulated DC filament supply

Nothing has been compromised in designing this control amplifier, from the ALPS® volume control to the Aluminum enclosure to the REED relay input selector. The 8020 has 4 inputs (CD, Tuner, AV, and AUX), each with +6 dB level adjustment.

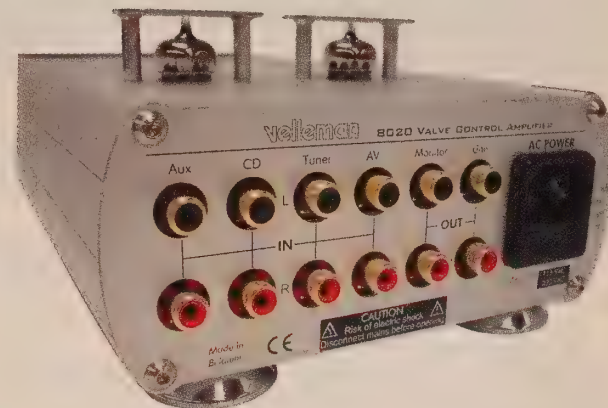
SPECIFICATIONS

Max input sensitivity:	200 mV for 0 dB out
Max output level:	35V pp
Gain:	x2 or x4 (with +6 dB on)
Frequency response:	18 Hz to 55 KHz ± 0.3 dB
Signal/Noise ratio:	100 dB
Total harmonic distortion:	0.04% @ 1 KHz
Channel separation:	85 dB @ 0dB in
Power:	115 or 230 VAC
Dimensions:	11.4" x 6.5" x 2.7"

K8020	Tube Control Amplifier Kit	\$349.99
8020WT	Factory Assembled & Tested K8020 Control Amplifier	\$425.99



Wired & Tested



Stereo Solid State Control Amplifier

High end quality, for any amplifier!

- 4 inputs
- Exclusive, high finish, solid aluminum enclosure
- High quality ALPS volume potentiometer
- Audio grade selected op-amps
- Capacitor-less output coupling

This control amplifier delivers clean, uncolored signals to your power amplifier, and is an excellent match with any of our kit amplifiers. The no-compromise design utilizes audio grade selected op amps, and has 4 inputs, one of which can be configured as either phono (RIAA) or line input.

All line inputs have a +6 dB level adjustment. Like its tube counterpart (the 8020) the 8021 is housed in an attractive aluminum case, and features the same APLS volume control and reed relay input selector.

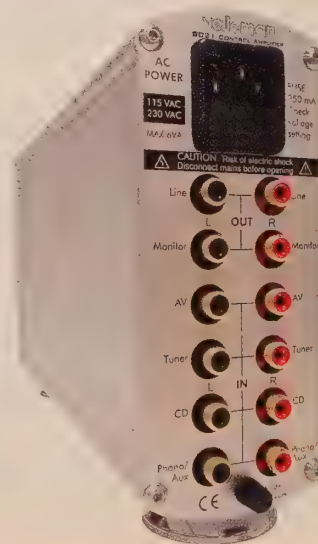
SPECIFICATIONS

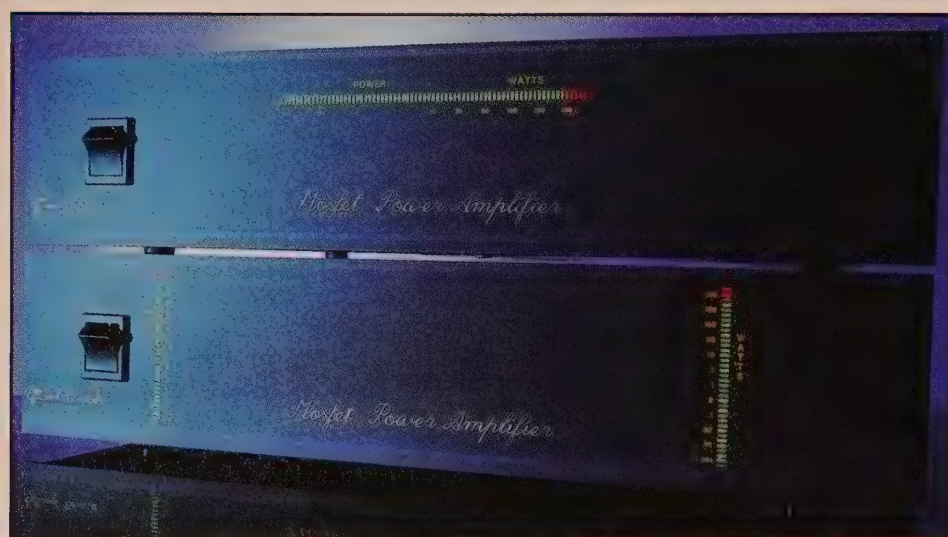
Max input sensitivity:	Line 200 mV, Phono 3 mV
Max output level:	26V pp
Gain:	x 2 or x 4 (with +6 dB on)
Frequency response:	10 Hz to 100 KHz ± 0.3 dB
Signal/noise ratio:	Line > 105 dB, Phono 83 dB
Total harmonic distortion:	0.003% @ 1 KHz
Channel separation:	90 dB @ 0dB in
Power:	115 or 230 VAC, 6A Max.
Size:	11.4" x 6.5" x 2.7"

K8021	Solid State Control Amplifier Kit	\$229.99
8021WT	Factory Assembled & Tested K8021 Control Amplifier	\$299.99



Wired & Tested





This ultra clean high power amplifier consists of two separate mono amplifiers. It delivers 2X 155W RMS into a 4 ohm load with only .005% harmonic distortion. The two amplifiers can be bridged to create a mono amplifier with double the power. Optional LED power meters (shown in photo) can be added.

With its striking black case, the 4020 is an attractive companion to our model 4100 preamp and 4500 FM tuner components. The 4020 is sold in kit form only.

K4020 Mosfet Class A Mono/Stereo Power Amplifier Kit
K4021 Matching LED Power Meter Kit

Mono/Stereo Mosfet Amplifier

Efficient Class A solid state power!



- Zero adjustments!
- Super efficient Class A operation
- Solid state convenience
- Mono bridged or stereo operation

SPECIFICATIONS

Music power:	2 x 300W into 4 ohms, 2 x 200W into 8 ohms
RMS power:	2 x 155W into 4 ohms, 2 x 100W into 8 ohms
Harmonic distortion:	0.005%
Input sensitivity:	1 VRMS
Signal-noise ratio:	-112 dB
Frequency response:	3 Hz - 120 KHz
Supply voltage:	100, 120, 230, 245 VAC
Power consumption:	600W Max
Size:	16.75" x 3.5" x 14"

\$499.99

\$49.99



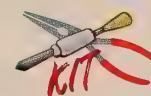
This preamp has been designed with all digital controls, no potentiometers. All functions (volume, tone, balance, input selection) are accessed and adjusted with push buttons, or via IR remote control. An LED Display indicates all settings. A switched mains power output is included enabling you to switch your other installed components on and off with the same remote control. Five inputs are provided, phono, CD, tuner, and tape 1 and 2.

This high quality receiver is an excellent complement to our K4100 preamp, though it can be used with any preamplifier. In order to assure the performance of the high frequency section of the receiver, this part of the circuitry is assembled and pre-set at the factory. You assemble the remainder of the kit (the 4500 is sold only in kit form). Forty (40) pre-set station memories are provided, each with a station name. Stored stations are recognized and displayed while tuning. Two 75Ω selectable antenna inputs are provided. All settings can be made through the front panel as well as via the K4101 remote.

K4100 Solid State Digital Controlled Preamplifier Kit
K4100WT Factory Assembled & Tested K4100 Preamplifier
K4500 Synthesized FM Stereo Tuner
K4101 IR Remote Control Kit for 4100 and 4500 Series

Digital Controlled Preamp & Tuner

A perfect matched pair for your power amp!



Wired & Tested

PREAMP SPECIFICATIONS

Max input sensitivity:	Tuner, Tape 1, 2 360 mV
(0 db out)	Phono 5.5 mV
	CD 500 mV
Frequency resolution:	8 Hz to 150 KHz -3 dB
Signal/noise ratio:	Tape, CD, Tuner 100 dB
	Phono 75 dB
Total harmonic distortion:	0.01% @ 1 KHz
Channel separation:	90 dB
Power:	115 or 230 VAC
Size:	16.5" x 2" x 13.75"

TUNER SPECIFICATIONS

Usable sensitivity:	5.5dBμ @ 1.8 μV
Stereo separation:	40 dB @ 1 KHz
Frequency resolution:	5 Hz-15 KHz @ -3dB
Distortion:	0.08% Mono, 0.2% Stereo
Signal/noise ratio:	80 dB
Power:	115 or 230 VAC

\$399.99

\$499.99

\$399.99

\$69.95

You might ask yourself why are we carrying car audio?

If you go back a few years, we offered an auto stereo amplifier kit, which was real popular. For a number of good reasons, we had to discontinue the kit, but we still get regular requests for car audio. Believe it or not, there is quite a bit involved in developing a kit like this, so we've decided to offer these assembled amplifiers from Pyramid

Audio. They offer great performance and excellent value – The best pricing we've seen! So where's the "I did it?" You get to install these into your car (or boat or whatever) along with your choice of speakers, etc. – a great weekend project with a killer sound system at the end!

400 Watt, 2-Channel Bridgeable Amplifier

- 2-channel bridgeable amplifier
- 2 x 200 Watts/1 x 400 Watts bridged
- Remote turn on/off; 2 Ohm stereo stable
- MOSFET pulse width modulated power supply
- Variable bass boost (0–18 dB @ 60 Hz)
- Variable treble boost (0–12 dB @ 10 kHz)
- Gold plated RCA high impedance inputs
- Soft turn-on circuit
- Heavy-duty aluminum alloy heatsink
- DC to DC converter circuitry
- Power on/diagnostic LED indicator
- Signal to noise ratio: >90 dB
- Distortion: <0.05% @ RMS power
- Frequency response: 10 Hz–30 kHz
- Overload/short circuit/thermal shutdown
- Dimensions: 8.3"l x 9.65"w x 2.7"h

PB310GX 400 Watt, 2-Channel Bridgeable Amplifier \$149.95

800 Watt, 4-Channel Bridgeable Amplifier

- 4-channel bridgeable amplification
- 4 x 200 Watts/2 x 400 Watts bridged;
2 x 200 + 1 x 400 Watts
- Remote turn on/off; 2 Ohm stereo stable
- Twin MOSFET pulse width modulated power supplies
- Variable bass boost (0–18 dB @ 60 Hz)
- Variable treble boost (0–12 dB @ 10 kHz)
- Gold plated RCA high impedance inputs
- Soft turn-on circuit
- Heavy-duty aluminum alloy heatsink
- DC to DC converter circuitry
- Power on/diagnostic LED indicator
- Signal to noise ratio: >90 dB
- Distortion: <0.05% @ RMS power
- Frequency response: 10 Hz–30 kHz
- Overload/short circuit/thermal shutdown
- Dimensions: 13.8"l x 9.65"w x 2.7"h

PB610GX 800 Watt, 4-Channel Bridgeable Amplifier \$224.95

1000 Watt, 4-Channel Bridgeable Amplifier

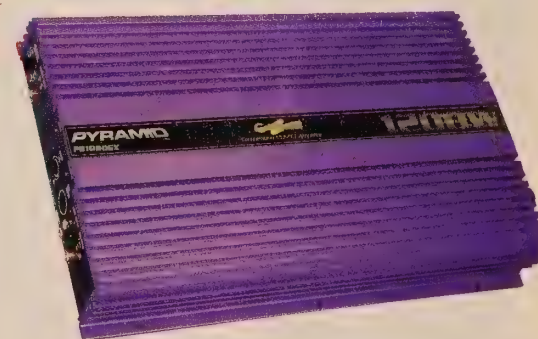
- 4-channel bridgeable amplifier
- 4 x 250 Watts Output; 2 x 500 Watts bridged;
2 x 250 + 1 x 500 Watts
- Remote turn on/off
- 2 Ohm stereo stable
- Twin MOSFET pulse width modulated power supplies
- Variable bass boost (0–18 dB @ 60 Hz)
- Variable treble boost (0–12 dB @ 10 kHz)
- Gold plated RCA high impedance inputs
- Soft turn-on circuit
- Heavy-duty aluminum alloy heatsink
- DC to DC converter circuitry
- Power on/diagnostic LED indicator
- Signal to noise ratio: >90 dB
- Distortion: <0.05% @ RMS power
- Frequency response: 10 Hz–30 kHz
- Overload/short circuit/thermal shutdown
- Dimensions: 15"l x 9.65"w x 2.7"h

PB810GX 1000 Watt, 4-Channel Bridgeable Amplifier \$299.95

1200 Watt, 2-Channel Bridgeable Amplifier

- 2-channel bridgeable amplification
- 2 x 600 Watts; 1 x 1200 Watts bridged
- Remote turn on/off
- 2 Ohm stereo stable
- Twin MOSFET pulse width modulated power supplies
- Variable bass boost (0–18 dB @ 60 Hz)
- Variable treble boost (0–12 dB @ 10 kHz)
- Gold plated RCA high impedance inputs
- Soft turn-on circuit
- Heavy-duty aluminum alloy heatsink
- DC to DC converter circuitry
- Power on/diagnostic LED indicator
- Signal to noise ratio: >90 dB
- Distortion: <0.05% @ RMS power
- Frequency response: 10 Hz–30 kHz
- Overload/thermal shutdown
- Dimensions: 16.4"l x 11"w x 2.7"h

PB1010GX 1000 Watt, 4-Channel Bridgeable Amplifier \$349.95



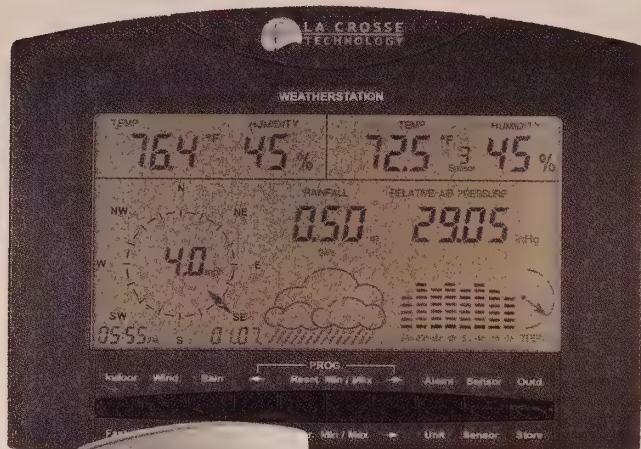


It's interesting and fun to watch the weather!

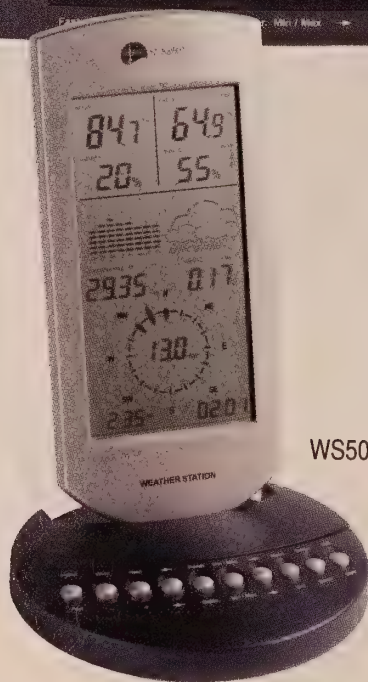
Many of us are fascinated by the weather — so much so that we even have a TV channel dedicated to it. And what about the time? We always want to know it, and the more accurately we know it, the better we feel about it.

This new family of products puts up-to-the-minute weather information in your home or office, along with the time. Several set their times

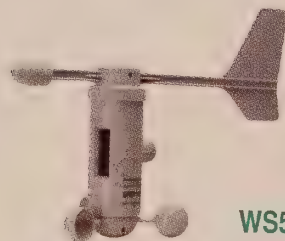
precisely by WWVB, the U.S. standard time broadcast from Boulder, CO. The weather stations utilize wireless transmitters (433 MHz) for monitoring outdoor weather conditions (some of them are even solar powered), with ranges up to 100'. From entry level to professional, we have a time/weather station here for everyone and every budget.



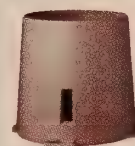
WS5000



WS5001



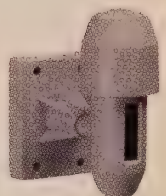
Included



Included



WS5000T
Included



WS5000H
Included

WS5000	Professional Wireless Weather Center	\$499.95
WS5001	Professional Wireless Weather Center	\$499.95
WS5000T	Extra Indoor Wireless Temp/Humidity Transmitter	\$39.95
WS5000H	Extra Outdoor Wireless Temp/Humidity Transmitter	\$76.95
WS5000PC	PC Interface and Software for WS 5000, WS5001	\$149.95

Professional Wireless Weather Centers

NEW!

Wired & Tested

This top end unit comes in two versions, the free-standing WS5001, and the WS5000, which can be free standing or wall mounted. They give you a clear picture of weather and trends both inside and outside through wind, rain, and up to 9 temperature/humidity sensors. Functionally they are identical. Each is shipped complete with display, 4 sensors, and mounting hardware. All sensors are wireless, so hook-up is fast and easy.

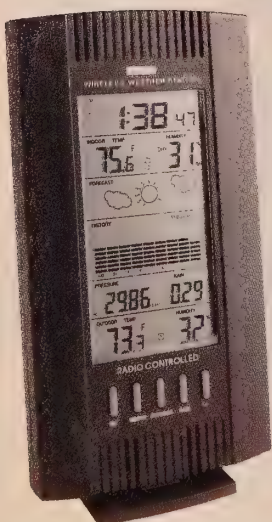
- Includes wireless indoor temp/humidity/pressure, wireless outdoor temperature/humidity, wireless wind sensor (speed and direction), and wireless rain gauge (self emptying)
- All outdoor sensors are solar powered and lithium battery backed up. Indoor temp sensor requires 2 x AA batteries (not included)
- Min/Max for all readings with time and date recorded
- Barometric pressure with 24 hour bar chart
- Weather forecast icons with pressure trend indicator
- Up to 39 programmable alarms with audible and visual alerts
- Windchill and dewpoint calculations
- Continuous display of all data
- Display/receiver is battery powered (4 x AA, not included)
- Display dimensions: WS5000 — 8-1/2" x 11-1/8" x 6", WS-5001 — 6-1/2" x 6-1/2" x 10"

Wireless Weather Center

NEW!

- Includes wireless indoor temperature/humidity/pressure, wireless outdoor temperature/humidity, and wireless rain gauge (self emptying)
- Can display data from up to three temp/humidity sensors
- All sensors powered by 2 x AA batteries
- Barometric pressure with 48 hour bar chart
- Weather forecast icons with pressure trend indicator
- Min/Max for all readings with time and date recorded
- Continuous display of all data
- Display/receiver is battery powered (4 x AA, not included)
- Dimensions 4 5/8" x 1 1/8" x 8 7/8", free standing or wall hanging

Wired & Tested



WS4000
WS4000H

Wireless Weather Center
Extra Wireless Temp/Humidity Transmitter



\$299.00
\$39.00

Wall Hanging Wireless Weather Center

This wall hanging center will look great in your home or office!

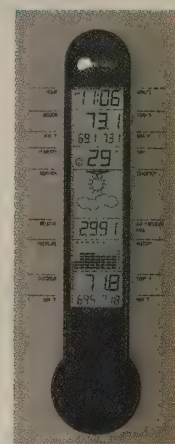
- Indoor temperature/humidity
- Wireless indoor/outdoor temperature transmitter
- Min/Max temperature records
- Barometric pressure with 72 hour bar chart
- Weather forecast icons with comfort level indicator
- Transmitter requires 2 x AAA batteries, display requires 2 x AA batteries, not included
- Dimensions 5 3/4" x 1 1/4" x 15", wall hanging only

WS3000

Wall Hanging Wireless Weather Center

\$199.00

Wired & Tested



Wireless Weather Station with Radio Controlled Time & Date

Great value in this entry level station

- Indoor temperature/humidity
- Wireless indoor/outdoor temperature transmitter with LCD
- Min/Max temperature records with time/date stamp
- Weather forecast icons with pressure trend indicator
- WWVB radio controlled time and date
- Transmitter requires 2 x AAA batteries, display requires 2 x AA batteries, not included
- Dimensions 4 3/4" x 1" x 6 3/4", free standing or wall hanging

WS2000

Wireless Weather Station

\$99.00

Wired & Tested



World Time Center

These radio controlled clocks display the time in two time zones plus the weather and more

- WWVB controlled time plus date display
- Weekday display in 8 languages
- Select your local time zone and one additional for simultaneous display
- Daylight savings time option (on/off) auto resetting
- Display indoor temperature, R/H, and Moon Phases (TS3100)
- TS3000 displays outdoor temperature and weather forecast (includes wireless Transmitter with LCD)
- Transmitter requires 2 x AAA batteries, display requires 2 x AA batteries (not included)
- Dimensions 11" x 1 1/2" x 8"

TS3000

World Time Center with Wireless Temperature and Forecast Icons

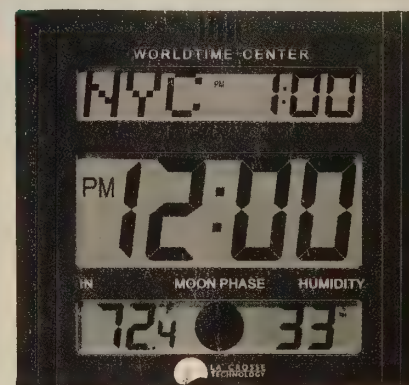
\$99.00

TS3100

World Time Center with Temperature, Humidity, and Moon Phases

\$69.95

Wired & Tested



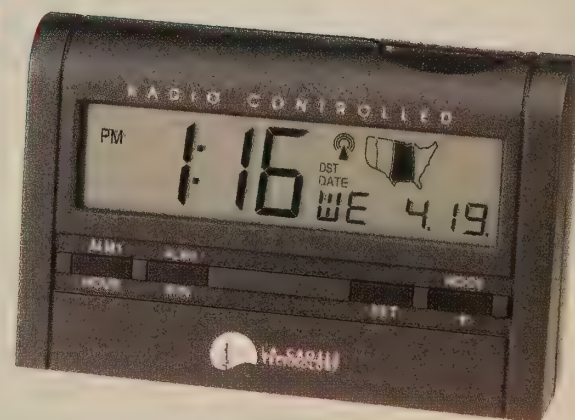
TS3100

Radio Controlled Alarm Clock

An alarm clock that is never wrong

This is a cool alarm clock! It's WWVB radio controlled and updates itself nightly plus automatically changes for daylight savings time, so you never over-sleep. Look closely at the display — you'll see the day and date as well as your continental U.S. time zone. You can also choose to display the indoor temperature. It has two alarms (one for you and one for your partner) and an auto-off backlight, runs on one AA battery (not included). Buy one for yourself, and several as gifts! 4" x 1 1/2" x 2 1/2".

Wired & Tested



TS1000

Radio Controlled Alarm Clock

\$44.95



Mini-Lab 200

The COMPLETE Analog-Digital Lab Station

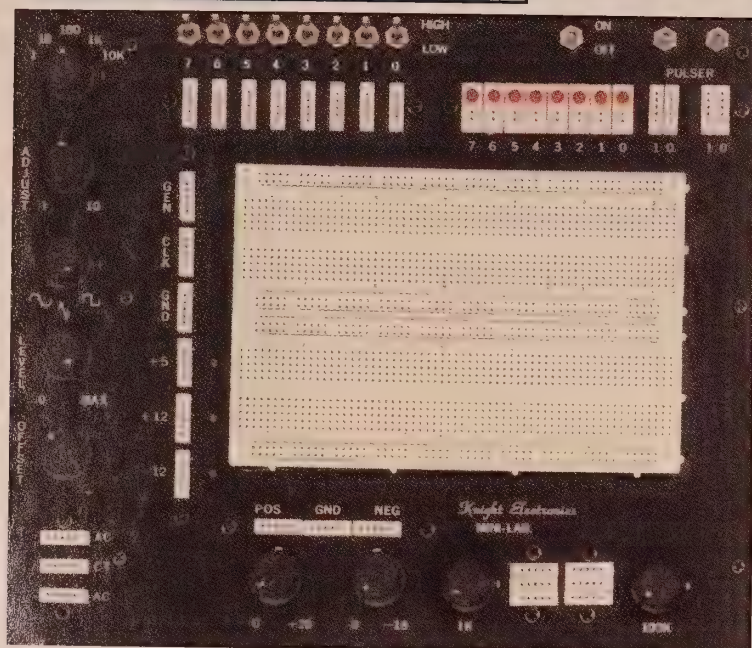
- Function generator, clock output, power supplies, level switches, pulsers, pots, LEDs, and a large breadboarding area ALL IN ONE!
- Available factory assembled and tested or in a "learn as you build" kit!
- Custom molded case included!



Wired & Tested

The Mini-Lab 200 is a complete system for building and testing prototype analog and digital circuits. The popular Mini-Lab is in use throughout the world in hundreds of colleges, universities, tech schools and R&D labs – and for good reason – it is an exceptional piece of equipment at an amazing price! When purchased in kit form, the easy to follow assembly manual permits the student to

learn proper assembly techniques and in about 16 hours have a professional piece of test equipment for immediate and future use. Kit or factory assembled and tested, the Mini-Lab 200 comes with a custom molded travel case to keep your new lab station looking like new for years to come.



Function Generator

Square, sine or triangle wave
0 to 20 Vpp output amplitude, 500 Ohm output impedance, short circuit protected
Continuously variable frequency from 1 Hz to 100 KHz in five decade ranges
DC offset adjustable 0 to $\pm 10V$

Clock Output

Open collector, user selectable pull-up configurations, internal or external
Rise and fall time 300 nanoseconds
Maximum output current 40 mA, frequency determined by function generator.

Power Supplies

Fixed +5 Volts ($\pm 0.2V$) 1.5 Amps
 $\pm 12V$ olts ($\pm 0.6V$) 1.5 Amps
Variable 0 to $\pm 18V$ olts 1.5 Amps
0.2% Line regulation all supplies
0.2% Load regulation all supplies
Short circuit and thermal protected
AC source: 30 Volt CT

Breadboarding Area

Color coded matrix
Over 1600 tie points
Velcro attached

Potentiometers

1K and 100K Ohm undedicated for prototyping

Indicators

8 buffered LEDs;
CMOS and
TTL compatible

Pulsers

Two Digital pulsers
TTL buffered and debounced
with complementary outputs

Level Switches

8 unbuffered outputs
0 Volts or +5 Volts



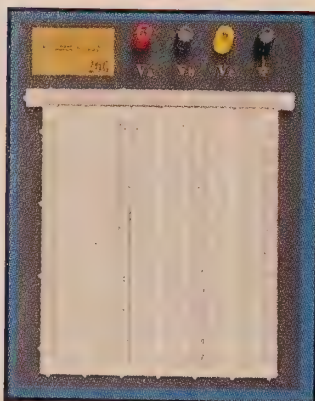
**Also available
in "Learn As You
Build" kit form!**

ML200 Mini-Lab 200 Kit with Custom Molded Case

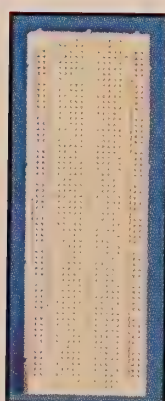
ML200WT Mini-Lab 200 Factory Assembled & Tested, with Custom Molded Case

\$155.95

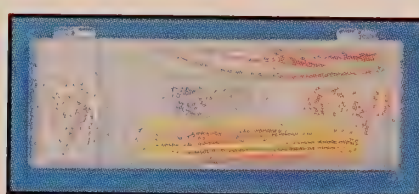
\$225.95



WBU206



WBU202



WJW70

Color Coded Breadboards

All guaranteed for 10,000 insertions!

- Premium quality, non warping
- Aluminum ground plates for high speed/low noise protection
- Non-conductive self adhesive backing

Wired & Tested

Manufactured to exacting standards and guaranteed for 10,000 insertions, these breadboards are the industry's quality standard. All boards are color-coded with a letter/number matrix to simplify circuit building.

WBU206 Breadboard, 3 Terminal Strips, 5 Bus Strips, 2390 Tie Points, 4 Binding Posts, 6.9" x 5.8"

WBU202 Breadboard, 1 Terminal Strip, 2 Bus Strips, 830 Tie Points, 6.5" x 2.1"

WJW70 Jumper Wire Kit, 140 Pieces

\$23.95

\$6.95

\$4.95

Analog and Digital Trainers & Power Supplies

Full function trainers, available analog or digital!

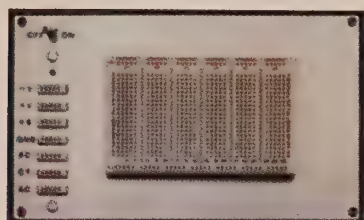
- COMPLETE and FULL function low cost trainers!
- Analog, digital, and power supply
- Order a pair and save!
- Custom molded case included!

The AEX20 and DEX20 give you all the functions necessary to learn (or teach) basic linear and digital electronics. They

allow you to learn good assembly procedures and power supply, analog and digital technology in an easy to build format. Both are housed in a high-impact ABS plastic case, each comes with a 830 tie point removable breadboard.

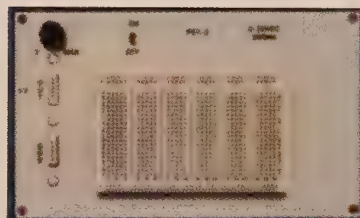


Power Supply Trainers



PST10

- ± 15 VDC + 5 VDC @ 1A
- Case Included



PST20

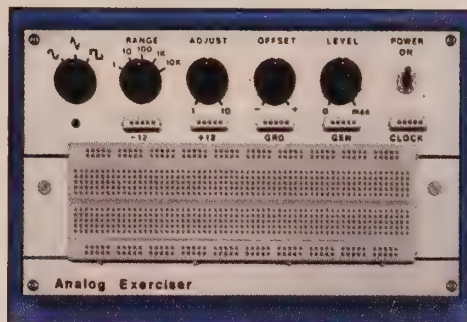
- 0-30 VDC Variable @ 500 mA
- Case Included

The PST10 and PST20 provide 600 tie points and integrated distribution strips with 30 (+) and 35 (-) tie points. Unique tie blocks facilitate rapid circuit connections by simple interconnection with solid 22 gauge hook-up wire. The boards have Velcro backing and are removable. 8.5" x 5.2" x 3".

Teachers: These 2 units cover the requirements for most power supply curriculum.

PST10: ± 15 VDC, +5 VDC at 1A, plus 2 AC Sources

PST20: 0-30 VDC continuously variable at 500 mA



AEX20

AEX20 Analog Trainer Power Supply

DC Fixed: +12V @ 300 mA, -12V @ 300 mA, short circuit protected.

Function Generator

Freq. Range: 1 Hz-100 KHz, 5 ranges
Amplitude: 0V-10V p-p
D.C. Offset: 0~ + 10V p-p
Output Impedance: 500 Ohm
Wave Forms: Sine, Square, Triangle

Clock Output

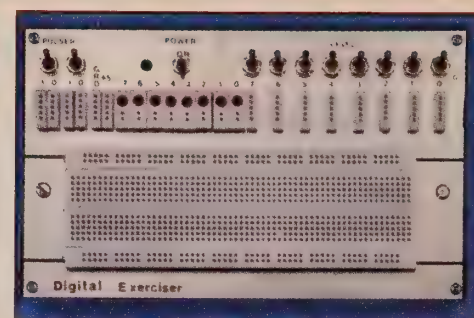
Rise & Fall Time: 300 ns
Drive: 40 mA, 5 TTL, Loads

Breadboard

WBU202, removable, 830 Total Tie Points

Enclosure

High Impact ABS Plastic 8.5" x 5.2" x 3"



DEX20

DEX20 Digital Trainer Power Supply

5V @ 100 mA, 2% Output Regulation @ 500 mA, 2% Line and Load Regulation

Logic Indicators

8 buffered, MOS & TTL Compatible

Logic Switch Output

0V or + 5V Unbuffered, 8 Logic Switches

Digital Pulsers (2)

TTL debounced w/Complementary Output

Breadboard

(1) WBU 202, removable, 830 Total Tie Points

Enclosure

High Impact ABS Plastic 8.5" x 5.2" x 3"



WJW70 Jumper Wire Kit

AEX20	Full Function Analog Trainer Kit	\$42.95
DEX20	Full Function Digital Trainer Kit	\$42.95
BEX20	Both Analog and Digital Trainer Kits (Buy both and save \$10.95!)	\$74.95
PST10	Power Supply Kit, ± 15 VDC, +5 VDC at 1A, plus 2 AC Sources	\$42.95
PST10	Power Supply Kit, 0-30 VDC Variable, 500 mA	\$42.95
WJW70	Jumper Wire Kit, 140 Pieces	\$4.95

Learn...Build...Have Fun!

Learning is not limited to education courses. "Learn While Building" and end up with some of the neatest products, while learning the theory behind them! It doesn't get better than that!

These are just a few of the Fun Kits you can build yourself!

Check them out!



BL1 Blinky Kit

Everyone's "First Kit" for over 28 years!

Page 20



CS1 Crystal Radio Set

Re-Discover History!

Page 12



AM1 AM Radio Transmitter

AM Radio Transmitter Basics!

Page 7



FM10A FM Stereo Radio Station

Be Your Own Disc Jockey!

Page 4



VG1 Van DeGraff Generator

Make Your Hair Stand Up!

Page 13



SG7 Speed Radar

How Fast Is He Really Going?

Page 17



True RMS Digital Multimeter & Scope

NEW!

6 Instruments in one!

- View industrial signals such as motor controls, UPS back ups, switching power supplies, and PLC controls
- Used by audio installers checking frequency, amps and volts
- Battery testing of voltages and currents
- Measure programmable logic controls, voltage regulators and inverters
- **400 Count True RMS DMM** – Full capabilities of a 4,000 count DMM. 0.3% basic DC accuracy and nine different functions.
- **1 MHz Oscilloscope** – View industrial signals such as motor controls, UPS, switching power supplies, and PLC controls with the detail and clarity of up to five times that of other products. Oscilloscope probes are not needed!
- **In-Circuit Component Tester** – Allows you to check voltage-current signatures on capacitors, resistors, semiconductors, and more while soldered in the circuit.
- **Logic Tester** – Allows a simple way to indicate transitions up to 2 MHz.
- **Trend Mode** – For slow changing events, Trend Mode gives you a chart recorder like display for easy viewing or monitoring.
- **Frequency Counter** – Measure low frequency signals from 1 Hz to 2 MHz and display duty cycle, pulse width, and period.
- **Plus RS232 Port** – Allows you to download data or waveform directly to a PC with optional cable and software (model A402).

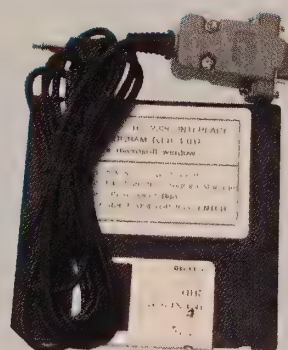
The TPI440 is a great value for the hobbyist or professional user. It combines a true RMS DMM with a 1 MHz digital storage oscilloscope. Sampling rate is 20 MS/Sec for high resolution, and it stores up to 8 waveforms. No need to change leads, all measurements (scope, logic, DMM, etc.) are made with standard test leads (A050 test lead set included). The 440 is powered by a replaceable, rechargeable battery pack, charger/adaptor are also included.

All items on pages 30 & 31 have a
3-Year Warranty

MS440	True RMS Digital Multimeter & Scope	\$299.95
A402	RS232 Cable & Software	\$59.95
A403	Protective Rubber Boot with Stand	\$19.95

Accessories

Select the Accessory for Your DMM



TLS2000RB Deluxe Test Lead Set

A251	AC Clamp-On Accessory for DMMs (0-400A)	\$49.95	A108	Software Kit (includes cable & disk) for 183 Multimeter	\$39.95	A040	Standard Test Lead Set	\$6.95
A256	AC/DC Clamp-On Accessory for DMMs (0-400A)	\$84.95	A900	Zipper Codura Case with Shoulder Strap	\$19.95	A050	Standard Test Lead Set w/ Alligator Clips (screw on)	\$9.95
A296	AC/DC Clamp-On Accessory for DMMs (0-1000A)	\$84.95				A060	6' Shielded Test Lead Kit	\$17.95
						A075	UL Listed Test Lead Set w/ Alligator Clips (screw on)	\$12.95

Digital Multimeters

From Basic to Professional, We Have a Meter for You!



120 Digital Multimeter

- 2,000 count
- Data hold
- Rubber boot with tilt bale
- DC Volts: 660V
- AC Volts: 600V
- Resistance: 2 K Ω

Great for: Electronic kits, radio controlled cars/ airplane motors, VCR repair, and radio repair. Includes test leads.

M120 Digital Multimeter

\$29.95



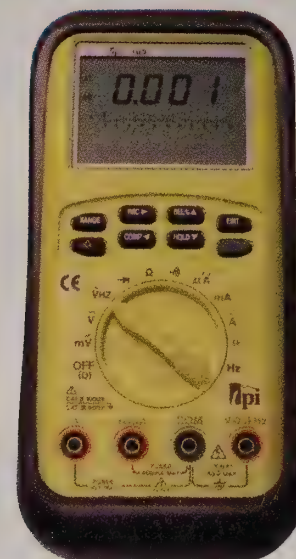
133 Digital Multimeter

- 2,000 count
- Resistance/Ohm checker
- Data hold
- Rubber boot with tilt bale
- AC Volts: 750V
- DC Volts: 1000V
- AC Amps: 10A
- DC Amps: 10A
- Resistance: 20 M Ω

Great for: Breadboard repair, computer circuit testing, hobby kits, home appliance repair, and checking motors. Includes test leads.

M133 Digital Multimeter

\$49.95



183 Digital Multimeter

- Triple display 4,000 count
- True RMS
- Analog bargraph
- Auto range
- Resistance/Ohm checker
- Capacitance checker
- Frequency counter
- Rubber boot with tilt bale
- RS-232 Optional
- Component test
- Trend mode
- AC Volts: 750V
- DC Volts: 1000V
- AC Amps: 10A
- DC Amps: 10A
- Resistance: 40 M Ω

Jam packed with features found only in units costing much more. This is a True RMS, autoranging multimeter. Includes test leads.

M183 Digital Multimeter

\$179.95

Accessories



A900

FTLK1	Fused Test Lead Kit (probes and leads)	\$19.95
SDK1	Deluxe PVC Test Lead Kit	\$29.95
TLS2000B	Deluxe Test Lead Kit	\$35.00



Oscilloscope Probes

SP60B	0-60 MHz Probe	\$29.95
SP100B	0-100 MHz Probe	\$34.95
SP200B	0-200 MHz Probe	\$39.95



HV15HFA High Voltage Probe

HV15HFA	15 KV DC + AC, DC-5 MHz, 1000:1	\$195.95
HV40C	40 KV DC + AC, DC-150 Hz, 1000:1	\$105.95

Infrared Thermometer

- Laser sighting
- 8:1 spot ratio
- Data hold

Great for: Measuring hot surfaces, measuring hard to reach places, check cables, and check machine parts.



T371	14-500° IR Thermometer	\$119.95
T373	14-950° IR Thermometer	\$139.95



DDS Audio Signal Generator

Lab quality and features, at a price for your bench!



Wired & Tested

- 0.1 Hz to 50 KHz with 0.1 Hz resolution
- Bright 5-digit display
- Direct keypad frequency entry

- Frequency continuously variable using rotary dial or up/down step keys
- Two memories for quick frequency change
- Sine or Square wave output

This laboratory quality DDS Audio Signal Generator will generate signals from 0.1 Hz to 50 KHz. Both square and low distortion sine waves are available. An easy-to-read 6-digit LED display and direct keyboard entry allows error-free entry of desired frequency. DDS technology guarantees that all frequencies are digitally accurate and referenced to a stable, master crystal reference oscillator. Entered frequencies may be adjusted up or down

in precise step increments using the step up/down keys or the large tuning knob. Output level is continuously adjustable from 0 to 1 volt peak-to-peak. A good audio generator is invaluable on any bench, so experience the pleasure of using a new state-of-the-art DDS Audio Signal Generator. 9 $\frac{5}{8}$ "w x 3 $\frac{3}{4}$ "h x 6"d.

SG550
SG550WT

DDS Audio Signal Generator Kit
Factory Assembled & Tested SG550

\$199.95
\$269.95



DDS RF Signal Generator, 40 KHz–15 MHz

Great for low frequency RF testing!



Wired & Tested

- 40 KHz to 15 MHz with 10 Hz resolution
- Bright 7-digit display
- Direct keypad frequency entry

- Continuously variable rotary dial or up/down step keys
- Two memories for quick frequency change
- Built-in 1 KHz or external AM Modulation

Here's a slick little RF generator with kilobuck features at an easy take-home price! The DDS RF Generator (big brother to our Direct Digital Synthesized DDS Audio Signal Generator) generates both sine and square waves from less than 40 KHz to over 15 MHz with 10 Hz resolution. Frequency entry is fast and easy utilizing keyboard, convenient spin knob, or up/down keys. Two independent frequency memories make end-to-end response checks quick and trouble-free. The easy to read 7-digit LED display shows

operating frequency while LED annunciators indicate selected modes. DDS technology guarantees that all frequencies are digitally accurate and referenced to a stable, master crystal oscillator. Capable of CW or AM with built-in 1 KHz tone or external AM modulation input. Output is continuously adjustable from 0 to 1 volt peak-to-peak. Add a state-of-the-art DDS RF Generator to your bench at a price far less than antiquated analog generators. 9 $\frac{5}{8}$ "w x 3 $\frac{3}{4}$ "h x 6"d.

SG215
SG215WT

DDS RF Signal Generator Kit
Factory Assembled & Tested SG215

\$229.95
\$299.95



Professional LCR Meter

LCR at a hobbyist price!

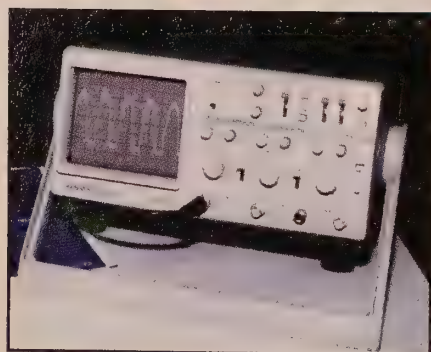
- 3 $\frac{1}{2}$ -digit, 2000 count
- DC Volt: 0–20V
- Resistance: 0–2000M ohm
- Capacitance: 200 pF–20 mF
- Inductance: 2 μ H–20H
- Temperature: -20–750°C
- Frequency: autoranging to 15 MHz
- Continuity, Diode & hFE test with overload protection
- Signal output function
- 10A fused protection

The DMM240 hand-held LCR meter will measure resistance from 20 to 2000M Ohms in nine ranges. It will also measure capacitance from 200 pF to 200 mF and inductance from 2 μ H to 20H and much more. It has a 3 $\frac{1}{2}$ -digit 2000 count display. Meter Capacitance in eight Ranges, Max & Data Hold Feature, and Autoranging Frequency to 15 MHz. Comes complete with temperature probe and holster style case.

DMM240

LCR Meter

\$99.95



20 MHz Dual Trace Scope

A solid performer at a budget price!

- 20 MHz dual trace
- 5 mV sensitivity

- Triggered sweep
- 6" high brightness CRT

The 20 MHz bandwidth is adequate for most needs and since you can actually view signals up to 50 MHz, you'll find a real cost savings over a 50 MHz scope! Dual trace lets you view timing and input/output signals

on the same screen for fast analysis, and the high sensitivity of 5 mV/div captures small signals that can slip by. Rock solid triggering is really appreciated when looking at slow rep rate signals. Included are two high quality hook-on scope probes that are worth \$60 by themselves! You'll find that the AAS1 is a great scope at a super price. The AAS1 scope features a manufacturers TWO year warranty!

AAS1

20 MHz Dual Trace Scope, with 2 Probe Sets

\$399.95

Perfect for Home, Shop, and Hobbyist

A necessity for experimenter's, ham operators or repair facilities. A clean source of DC power is indispensable and here are the supplies to fill the bill for any budget or application.

All units include a heavy-duty metal cabinet and heat sink. Superior design includes built-in short circuit and thermal protection with "auto-reset", making it almost impossible to damage these rugged supplies.

5 Amp Power Supply

NEW!

- Input: 115 VAC, 60 Hz, 100 Watts
- Output: 13.8 VDC
- 5 Amp constant/7 Amp surge

- Powers cell phones, Hand-held and CB radios, scanners, etc.
- Screw terminal connectors

PS7KX 5 Amp Power Supply

\$29.95



10 Amp Power Supply with Cigarette Lighter Plug

NEW!

- Input: 115 VAC, 60 Hz, 250 Watts
- Output: 13.8 VDC
- 10 Amp constant/12 Amp surge
- Powers cell phones, 12 VDC, CB radios, scanners, HAM radios, autosound systems, etc.

- Screw terminal connectors
- Convenient cigarette lighter plug lets you power ANYTHING that will run off a 12V car cigarette lighter
- LED condition indicators

PS15K 10 Amp Power Supply with Cigarette Lighter Plug

\$51.95



22 Amp Power Supply

NEW!

- Built-in cooling fan
- Input: 115 VAC, 60 Hz, 500 Watts
- Output: 6~15 VDC (adjustable)
- 22 Amp constant/25 Amp surge
- Powers 6~15 VDC devices such as cell phones, CB radios, scanners, high-power HAM radios (100W PEP), autosound systems, etc.

- Screw terminal connectors
- Crowbar overvoltage protection
- LED condition indicators
- 3 prong grounded AC plug

PS26KX 22 Amp Power Supply

\$134.95



32 Amp Power Supply

NEW!

- Built-in cooling fan
- Input: 115 VAC, 60 Hz, 700 Watts
- Output: 6~15 VDC (adjustable)
- 32 Amp constant/35 Amp surge
- Powers 6~15 VDC devices such as CB radios, high-power HAM radio transceivers and high-power solid state amplifiers (100W-200W)

- Screw terminal connectors
- Crowbar overvoltage protection
- LED condition indicators
- 3 prong grounded AC plug

PS36KX 32 Amp Power Supply

\$164.95



0-30V Adjustable Power Supply

NEW!

- Input 110/60 Hz
- Input current: 230 mA @ 0A load; 2.21A @ 5A load
- Output current: 0-5A adjustable
- Output Power: 0-30V adjustable
- Fine & coarse voltage adjustments for accurate settings
- Ripple: 50 mV peak to peak max. @ 5A load

- Load regulation: $\pm 2\%$
- Dual gauges (current/voltage)
- Safety in-line jack
- Positive, negative, and ground output terminals
- Complete with test leads and manual
- Suitable for scientific & technical applications
- Dimensions: 11.5"l x 9"w x 4.75"h

PS32LAB

0-30V Adjustable Power Supply

\$99.95



Log Data and Plot Graphs Directly on Your PC



DrDAQ Datalogger with Built-in Sensors

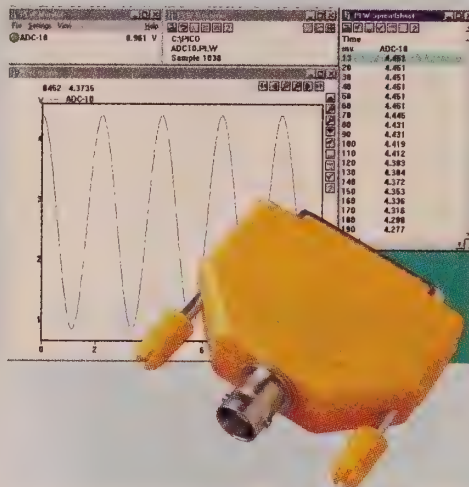
NEW!

The DrDAQ is a low cost data logger from Pico Technology. It is supplied ready to use with all cables, software and example science experiments.

- Very low cost data logger
- Built in sensors for light, sound (level and waveforms) and temperature
- Measure pH – just plug in any standard pH electrode
- Sockets for external sensors

- Use DrDAQ to capture fast signals (Ex.: sound waveforms)
- Outputs for control experiments
- Simply plug in to your PC and measure – supplied with both PicoScope (oscilloscope) and PicoLog (data logger) software

DD148	DrDAQ Datalogger	\$99.00
DD149	DrDAQ + 2 Temperature Sensors	\$129.00
DD100	Temperature Sensor	\$25.00
DD011	pH Electrode	\$55.00



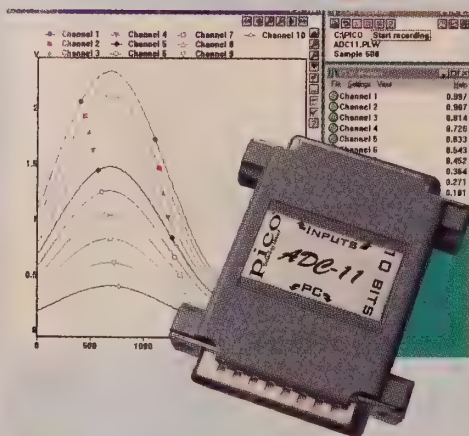
ADC10 Single-Channel Data Acquisition Module

NEW!

- Lowest cost
- Up to 22 kHz sampling
- 0–5V input range
- Plugs directly into parallel port
- No power supply required
- Compact design
- Datalogging and oscilloscope software included

The ADC10 gives your computer a single channel of analog input. Simply plug into the parallel port and you are ready to go. Input is via a BNC socket allowing a (x1) scope probe to be used. Use with PicoScope as a virtual instrument or PicoLog as a datalogger.

ADC10	Single-Channel Data Acquisition Module	\$95.00
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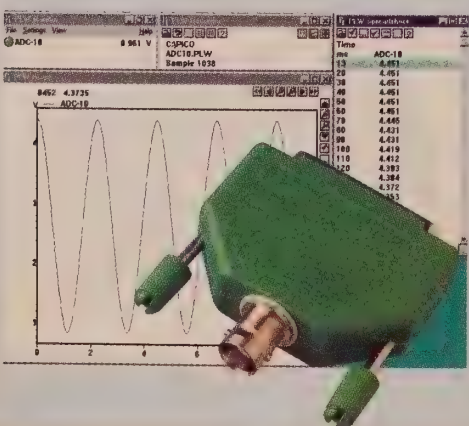
ADC11 Eleven-Channel Data Acquisition Module

NEW!

- Up to 18 kHz sampling
- 0–2.5V input range
- Digital output
- Plugs directly into parallel port
- 11 channels, compact design
- Datalogging and oscilloscope software included

The ADC11 provides 11 channels of analog input in a case slightly larger than a matchbox. It is ideal for portable data-logging using a “notebook” computer. The digital output can be used for simple control purposes or for powering sensors such as thermistors.

ADC11	11-Channel Data Acquisition Module	\$155.00
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ADC12 Single-Channel Data Acquisition Module

NEW!

- Single Channel
- High resolution – Up to 17 kHz sampling
- 0–5V input range
- Plugs directly into parallel port
- No power supply required
- Compact design
- Data Logging and oscilloscope software included

The ADC12 is similar to the ADC10 but offers an improved 12 bit (1 part in 4096) resolution. The ADC12 is especially useful for recording small signal changes, yet its sampling speed is fast enough for use as a general purpose test instrument.

ADC12	Single-Channel Data Acquisition Module	\$155.00
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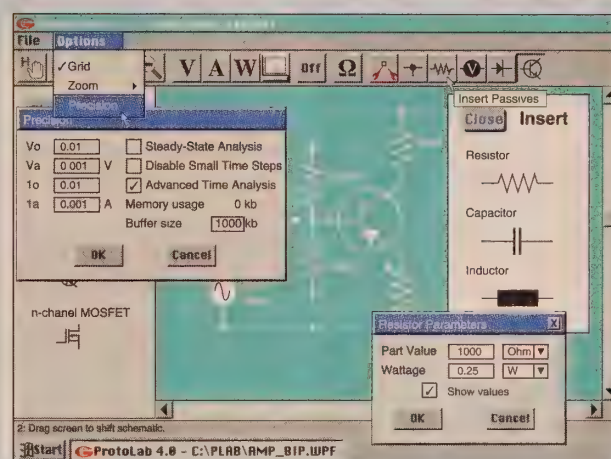
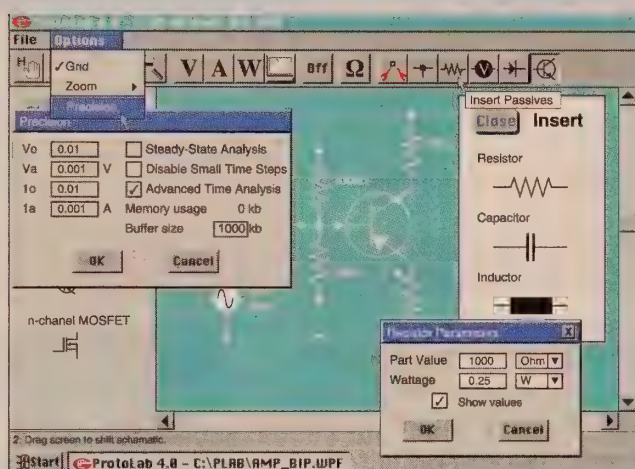
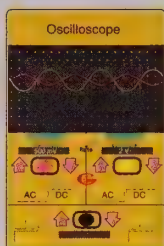
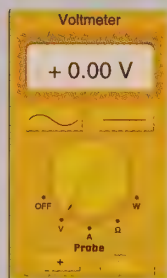
Electronic Design & Test – No Solder, No Components, No Test Equipment!

ProtoLab 4.0 Software for PC

Easy to use circuit simulation package priced for the hobbyist!

- Easy to use interface: Create AC & DC circuits moments after installation with ProtoLab's easy "click and drag" component placement and on-line help
- Choose from a complete list of active and passive components
- Five virtual instruments allow for instant, accurate circuit analysis
- Pre-designed circuit library included
- System requirements: IBM PC-386, 4 MB RAM, SVGA graphics, Windows® 3.1 or better

ONLY
\$49⁹⁵

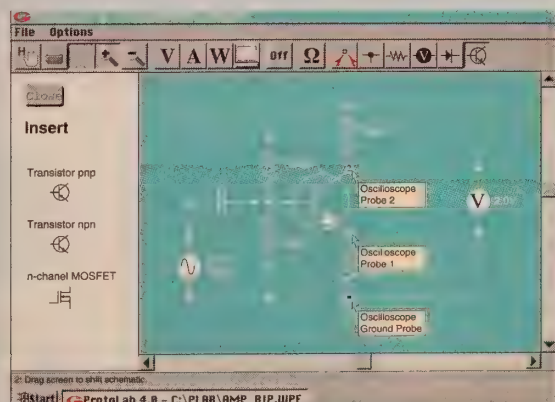


Design circuits instantly by choosing from a long list of active and passive components...

Includes: Wires, junctions, grounds, resistors, capacitors, inductors, DC voltage sources, AC voltage sources, DC current sources, AC current sources, diodes, zener diodes, transistors, and MOSFETs.

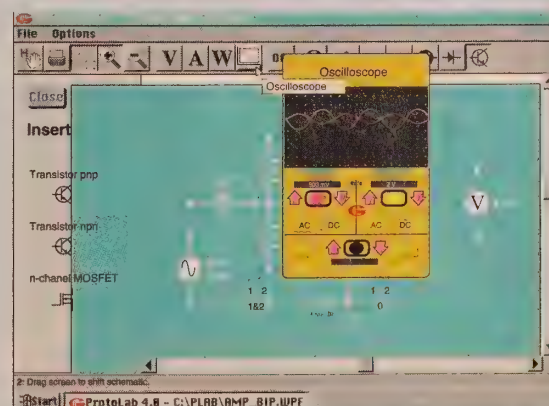
Easily adjust timing intervals and voltage & current steps for precise circuit analysis...

ProtoLab 4.0 is designed to work as a simulated prototyping lab. Insert components on a grid, similar to a breadboard, then test the circuit using the appropriate test instrument from the tool bar. ProtoLab's prototyping grid area is extensive and can handle a vast array of active and passive components.



Use test instruments by simply placing probes at the desired node.

ProtoLab's predesigned circuit library includes: MOSFET & transistor amplifiers, bridges, sinewave oscillators, squarewave oscillators, phase shift oscillators, current mirrors, integrators, differentiators, transistor & MOSFET monostables, LC oscillators, tuned collector amplifiers, LC tuned circuits, power supplies, and voltage stabilizers.



Analyze circuits accurately utilizing a complete range of virtual test instruments...

Including: Voltmeter, ammeter, wattmeter, oscilloscope, and ohmmeter.

Ramsey now carries Basic Stamps!

Basic Stamp is a family of microcontrollers originally designed for and widely used in industry. Due to the ease of programming and simple interface, hobbyists have embraced the Basic Stamp as their controller of choice.

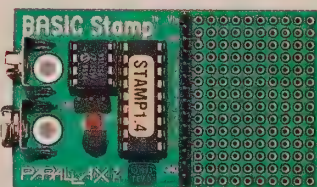
All basic stamps work under the same logical design, consisting of a 5 volt regulator, resonator, serial EEPROM, and a PBASIC interpreter. A tokenized PBASIC program is stored in the non volatile EEPROM, which is read from and written to by the interpreter chip. The interpreter chip

fetches the instructions one at a time and performs the appropriate operation on the I/O pin. Most basic stamps are easily programmed with PBASIC using a PC with a DOS or Windows editor and a serial cable.

If you have an interest in programming and using microcontrollers in your projects, dive into Basic Stamp. We have a selection of popular modules and kits, some including text books. To add to your enjoyment, there is a wealth of Basic Stamp information plus free downloadable programs available on the web. Have fun!

Basic Stamp Rev. D Module

Features eight I/O lines, 80 instructions maximum, 2000 instructions per second. 2400 baud serial I/O and PCB package. Includes I/O instructions for pushbuttons, potentiometers, pulse measurements, PWM, serial I/O and sound. Ideal for robotic projects. It's easy to program and use. Includes PC board with prototyping area, 9V battery clips, I/O header, and programming connector.

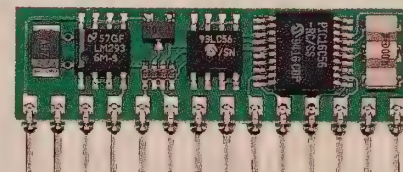


27100 Basic Stamp Rev. D Module

\$34.00

Basic Stamp 1 Module

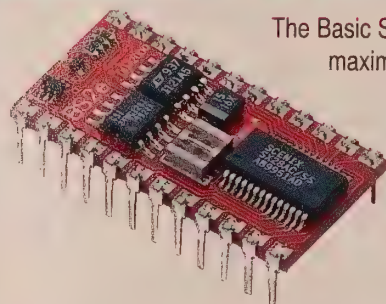
The Basic Stamp 1 is packaged in a 14-pin SIP module. The BS1IC is an ideal fit for applications where space is tight. The BS1IC module format is very easy and quick to implement.



BS1IC Basic Stamp 1s Module

\$34.00

Basic Stamp II Module



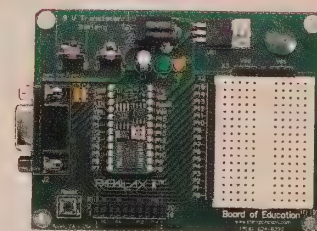
The Basic Stamp II features 16 I/O lines, 500 instructions maximum, 4000 instructions per second. 50 KB baud serial I/O instructions as BS1 IC, plus DTMF tones, frequency generation, pulse counting, serial-shift registers and X10 powerline control. I/O functions common to both modules have a higher resolution on the Stamp II, due to its faster clock speed.

BS2IC Basic Stamp II Module

\$49.00

Board of Education

This board was designed in cooperation with schools and colleges to teach microcontroller interfacing and programming. Whether you are using the Basic Stamp in the class room, for prototyping, or for real-life programming, you'll find it to be an ideal piece of hardware for the task. Full kit includes: BS2IC module, breadboard, serial cable, ten 22 gauge wires, documentation and power supply.



28150 Board of Education (alone)

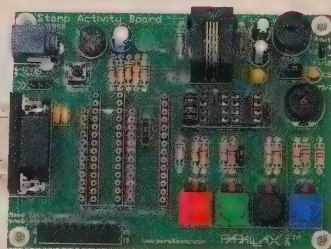
\$59.00

28102 Board of Education Full Kit with Power Supply

\$109.00

Activity Board with Power Supply

The Basic Stamp activity board is a demonstration board for Parallax Basic Stamp computers (BS1IC and BS2IC modules). Sample source code is included.



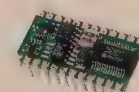
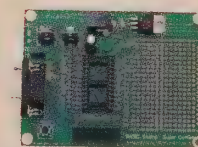
- Four push buttons let you simulate inputs
- Four LEDs indicate the status of the outputs
- 32 Ohm speaker output frequencies: 500 to 8 KHz
- Potentiometer gives you analog output
- A/B sockets support many 8-pin DIP ICs including: EEPROMs, ADCs, digital thermometers, etc.
- Includes manual, power supply, and sample source code diskette

27905 Activity Board with Power Supply

\$89.00

Basic Stamp 1 Starter Kit

The Basic Stamp 1 Starter Kit includes BS1IC module, Super carrier board, a parallel port programming cable, the new Basic Stamp Manual Version 2.0, and a CD ROM. All of the original Basic Stamp 1 application notes from Scott Edwards are included on the CD ROM in PDF format. Because the Basic Stamp 1 requires the Super Carrier, it is not available in the "build your own" format.



27205 Basic Stamp 1 Starter Kit

\$109.00

Stamp Works Kit

NEW!

Have you been wanting to do everything with Basic Stamps but have wound up doing nothing because you don't know where to start? Stamp Works can show you the way to "micro-controlling" your world. This all-in-one-kit takes you beyond theory, throwing you head first into a collection of 32 experiments that will teach you Basic Stamp programming. You'll learn to connect popular active and passive components. You even get the tools you'll need to assemble the experiments. Written by Jon Williams, 200 pages, an appendix includes the Basic Stamp 2 manual. Includes: StampWorks manual, NX1000 Basic Stamp experiment board, Basic Stamp 2 module (BS2IC), 2 row x 16 character Hitachi-compatible parallel LCD with custom manufactured cable, digital multimeter with two

probes, wire cutter/stripper/pliers, three 100' rolls of 22 AWG wire (red, white & black), screwdriver kit (two standard and two phillips), photoresistor, '555 timer, 8-bit serial to parallel and 8-bit parallel chips, Dallas Semiconductor 1620 Digital Thermometer and 1302 Real Time Clock with 32.768 KHz crystal, National Semiconductor ADC0831 8-bit A/D converter, Maxim 7219 8-digit LED display driver, National Semiconductor LM358 op-amp, 12V unipolar stepper motor, Parallax standard servo, 12 VDC/1 Amp wall-pack power supply, resistor pack assortment (220s, 1K, 10K, 100K), capacitors (0.1 μ F, 3300 μ F), serial cable, Parallax CD ROM, and a plastic box to hold parts.



27297

Stamp Works Kit

\$349.00

What's a Microcontroller? Parts & Text

NEW!

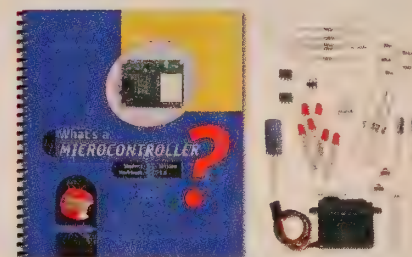
- Introductory programming to blink a LED, and activate blinking LEDs with buttons
- Control a Servo motor using a photoresistor as an input
- Implementing a 555 timer to off-load tasks from the Basic Stamp

- Microcontroller book contains schematic, pictorials, and explanation of 6 projects
- 32 piece parts kit includes components for 6 projects described in Microcontroller book
- Good for beginners
- Module board not included

28152

What's a Microcontroller? Parts and Text

\$45.00



Robotics! Parts & Text

NEW!

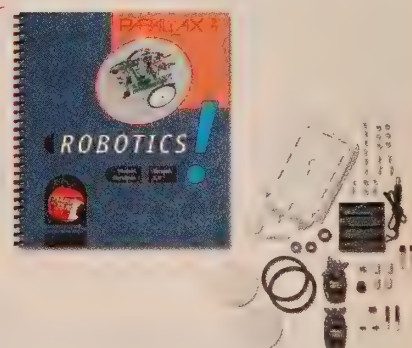
You'll learn autonomous robot programming and circuitry, and be challenged with the end-of-chapter exercises. The projects include basic movement, object detection with whiskers and infrared, light following and avoidance, edge detection on a table, sound feedback, and making one Boe-Bot follow another.

Includes: infrared receivers, infrared LEDs, resistors (220 ohm, 470 ohm, 10K), capacitors (0.01 μ F, 0.1 μ F, 3300 μ F), piezospeaker, photoresistors, robot chassis and associated hardware, whisker kit, screw/nut hardware pack, wheels, servos, etc.

28154

Robotics! Parts & Text

\$119.00



Earth Measurements Parts & Text

NEW!

The 178-page text is the most complete primer on Basic Stamp program structuring, sensor calibration, and serial communication in the Stamps in Class series. These concepts are taught using an earth science theme and a do-it-yourself equipment approach. Includes: DS1604, 55 timer, AD592 temperature

probe, photodiode, LEDs, resistors (10, 100, 470, 10K, and 100K ohm), capacitors (.01, .1 μ F, and .22 μ F), piezospeaker, pushbutton, water pump, screws, zip ties, nuts, cup spanners, 16" jumpers, and 3" jumpers.

28153

Earth Measurements Parts & Text

\$69.00



Industrial Control Parts & Text

NEW!

Industrial Control is 198-page educational tutorial on process control with the Basic Stamp. Includes: ADC0831 A/D converter, LM358 op-amp, transistors, infrared LEDs, phototransistor,

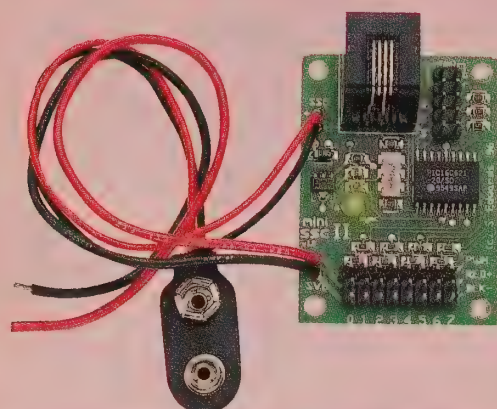
switches, LEDs (green, red, yellow), resistors (220, 470, 1K, 10K ohm), capacitors (1, 10 μ F, 16V), potentiometers (10K multi-turn pots), fan, and two-hole drilled film canister.

28156

Industrial Control Parts & Text

\$49.00





Mini SSC II (Assembled)

NEW!

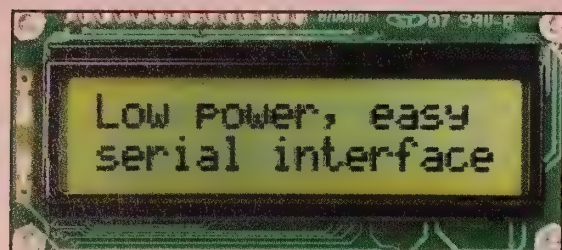
The Mini SSC II lets a Stamp or PC control up to eight R/C servos via a serial hookup. This is a fully assembled module that includes a convenient phone-style jack for serial hookup, Futaba-J servo output headers, a sync LED to indicate when valid data is received, and switch-

able servo range/resolution (90° range with 0.36° resolution, or up to 180° motion and 0.72° resolution).



MSSC2 Mini SSC II Assembled

\$44.00



2 x 16 Serial LCD Modules

NEW!

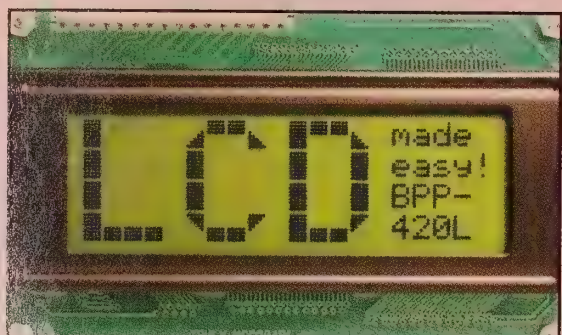
- Ideal for use with Stamps
- High contrast supertwist display
- Serial "backpack" accepts RS232, or inverted CMOS, TTL at 2400 or 9600 bps
- Power requirement: 4.8-5.5 VDC @ 3 mA
- 3.1"l x 1.4"w; 0.1 lbs.
- Available with or without backlight

BPI216N 2 x 16 Serial LCD Module

\$45.00

BPI216L 2 x 16 Serial LCD Module with Backlight

\$55.00



4 x 20 Serial LCD

NEW!

- Ideal for use with Stamps
- 120 x 32 pixel graphics screen with backlight
- Terminal style 2400 or 9600 bps serial input
- EEPROM stores text font & six full screen images
- Supports multiple fonts and sizes
- Requires 9V battery or transformer
- 3.1"l x 1.9"w x 0.8"t; 0.3 lbs.

BPP420L 4 x 20 Serial LCD with Terminal Features, Big Character Mode

\$79.00

Stepper Motor Driver

NEW!

Lots of stepper motors out there...but no controllers – UNTIL NOW!

- Controls direction, step size, and power to the motor
- Output drives 5 to 15 volts
- Uses Motorola Stepper Motor driver IC chip



The motors are top quality, but how the heck do you drive them without shelling out a fortune? Easy, with the Ramsey Super-Stepper! Build an accurate positioner, X-Y controller, plotter or even a Robot! The Super-Stepper will drive most any stepper from 5 to 15 volts. You'll be able to control direction, speed, step size (rotational increment), and even power-down the motor after rotating it. An on-board clock generator is provided for easy hook-up-and-go operation or you can externally drive the kit for

more exotic control. We give complete details and ideas for additional uses. Put those versatile, first rate (and cheap!) motors to work with this exciting kit. Add our matching case set for a neat, professional assembly. Operates on 5 to 15 VDC. Optional case size 5"w x 1½"h x 5¼"d.

SMD1 Stepper Motor Driver Kit
CSMD Matching Case & Knob Set for SMD1
AC125 12 VDC AC Power Adapter

\$24.95

\$14.95

\$9.95

Basic Controlled Robotic Kits

These high-quality robotic kits are controlled by a PC or BASIC stamp microcontroller, and are designed for the high school, college, or robotics hobbyist. They are great for learning and experimenting with robotics, motion control, microcontroller pro-

gramming and artificial intelligence. All involve mechanical assembly and programming, some involve soldering also.

5 Axis Robotic Arm Kit

Fast, accurate, and repeatable, this robot kit features base rotation, shoulder, elbow, and wrist motion along with a functional gripper for 5 independent axis. A host PC or microcontroller is required to issue simple positioning commands for movement. The servo controller is pre-assembled, and can control up to 8 servos. Six are included in this kit.

Both DOS® and Windows® software are included. The DOS® software is written in Quick BASIC 4.5 and allows keyboard control of movement, saving of positions to a script file, playback and load of the script files. Source code is included in ASCII. The limited version of RoboMotion for Windows® lets you teach the robot from the keyboard or a joystick. The arm is positioned in an XYZ grid in inches, moves are stored in a spreadsheet for easy editing. For more advanced projects, the arm can be controlled without a PC host by the NextStep microcontroller with BASIC Stamp 2 or BS2E.

Our complete kit includes the robotic arm kit, a serial data cable, and two servo wire adapters for easy hook-up. The arm requires 4.8 to 7.2 VDC at 1.5A. Batteries are recommended.

RK1000 5 Axis Robotic Arm Kit

\$214.99



Hexapod 1 Robot Kit

This kit really walks, with six legs driven by three high quality Hitec servo motors. It walks with an alternating tripod gait, has full horizontal motion, and over 1" of vertical lift. The robot comes with First Step, a BASIC Stamp 1 programmable microcontroller, and can support many additional sensors like our optional bumper switch kit.

A PC is required to download programs to the robot, using the BASIC Stamp computer. A disk is included containing the BS1 editor program along with sample PBASIC programs written specifically for the Hexapod 1. They demonstrate various ways of controlling the behavior of the robot including the use of feeler switches like our RK2100.

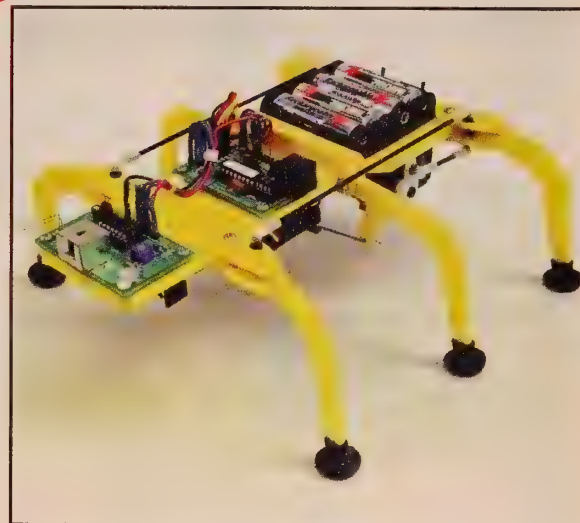
Our kit includes the First Step microcontroller, and comes complete with a required DB25 programming cable and connector kit. Powered by four AA batteries, not included.

RK2000 Hexapod 1 Walking Robot Kit

\$194.95

RK2100 Bumper Switch Kit

\$14.95



Carpet Rover II Robot Kit

This advanced kit is an 8 x 8" differentially steered base that is excellent for carpet or tiled floor experimentation. It uses the Next Step microcontroller, a BASIC Stamp 2 controller that can use the BS2 or BS2-E (sold separately). A host PC is required to download programs to the robot.

We've created a complete kit here including the Rover, programming cable, IR proximity detector, bumper switch kit, and line follower kit. Equipped and appropriately programmed, the Rover can move smoothly about a room without bumping into obstacles. This and many other PBASIC programs, written specifically for the Rover, are included with the kit. You'll be entertained for hours while learning some of the basics of robotics and artificial intelligence!

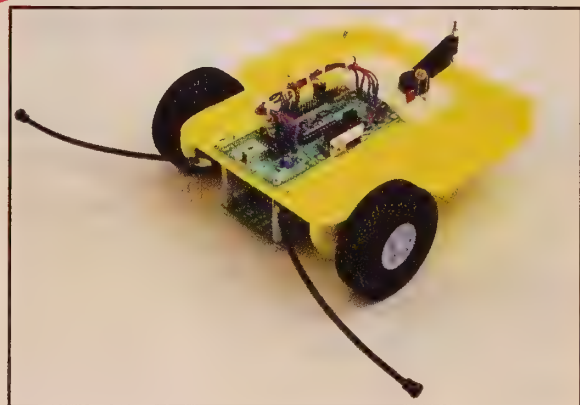
Carpet rover II requires one 9V battery for the electronics, and four C cells for the servos. BS2 or BS2-E required, all sold separately. Includes Rover, programming cable, IR proximity detector, bumper switch kit, and line follower kit. Additional sensors can be added.

RK3000 Carpet Rover II Complete Kit

\$185.00

RK2100 Extra Bumper Switch

\$14.95



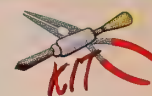
Carpet Rover II with two RK2100 bumper switches



QRP Transmitters

Work the world on a Watt!

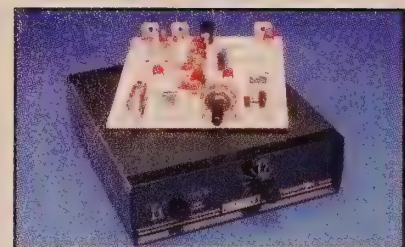
- Four transistor circuit, oscillator, RF amplifier chain and clean keying stage
- RF output of approximately one watt (1W for QRP-20)
- Pi-network output for good matching and harmonic suppression
- Provision for two internal crystals (one crystal provided), front panel switching
- VCXO tuning, frequency can be tuned approximately 7 KHz around XTAL frequency
- Operates on 12 volts DC drawing about 400–500 mA



These nifty little CW transmitters are practical and economical take-along rigs for trips, camping, teaching or just amazing yourself with just what a watt will do! With exceptional manual of over 20 pages, the detailed step-by-step instructions guide you to a perfectly operating finished transmitter. The rigs use a standard crystal that is connected into a VCXO circuit – which means that you can tune around the crystal's frequency by up to 20 KHz – thus giving you stable crystal control while still being able to tune around! A front panel switch lets you choose between two crystals, we include one, you

can add another of your choice. A built-in T-R switch allows break-in operation. Of course, these transmitters interface perfectly with our QRP Mini-rig receivers and our CMOS CW keyer! And for the real Ham, there's plenty of room inside the custom case for your own circuit modifications and experiments. These little rigs are often the heart of many QRP operator's stations. Modify "till-the-cows-come-home," or just use 'em as they are – these little rigs pack a lot of performance into an economical package. Runs on 12 VDC at 200 mA.

QRP20	20 Meter Transmitter Kit, Includes 14.060 MHz Xtal	\$29.95
QRP30	30 Meter Transmitter Kit, Includes 10.108 MHz Xtal	\$29.95
QRP40	40 Meter Transmitter Kit, Includes 7.040 MHz Xtal	\$29.95
CQRP	Matching Case & Knob Set for QRP Transmitters	\$14.95
AC125	12 VDC AC Power Adapter	\$9.95



QRP Mini Receivers

Get in on the action for only \$30!

- Sensitivity of approximately one microvolt rivals the big rigs!
- Covers 500 KHz of selected band
- Receives CW, SSB and AM
- Plenty of audio output, drives any speaker or phones



These little rigs are burning up the airwaves as young and old alike are rediscovering the fun in building their own equipment! Our detailed, step-by-step instruction manuals make building an enjoyable and rewarding experience. You're guided carefully to the completion of a unit that not only works, but will provide hours of operating pleasure. These trusty and proven Ramsey all mode mini rigs are routinely used worldwide by Hams of all ages. You'll find you don't need high power – K71RK worked and QSL'd all states, plus global DX QSOs from Argentina to the former USSR – with only 2 mW! You don't need hundreds of watts, thousands of dollars or massive equipment, you'll find it's more fun with less! The receivers are true superheterodyne direct con-

version – a simple design that does not require the use of fancy IFs, RF filters, or exotic mixers, in short, the ideal design for easy hobby building. Only recently have high performance ICs become available that enable such circuitry to be constructed. Beginners can easily build these receivers. And, experienced amateurs and QRP enthusiasts can use them as a reliable, economical, basic foundation for modifications. Our single PC board has plenty of room for lots of modifications and hook-ups, tinker to your heart's content. Suggestions and technical info are included in every receiver manual. Isn't this what Ham radio is all about? Operates on 9V battery (not included). Optional case size: 5" w x 5 1/4" d x 1 1/2" h.

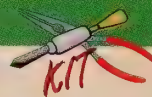
HR20	20 Meter Receiver Kit	\$29.95
HR30	30 Meter Receiver Kit	\$29.95
HR40	40 Meter Receiver Kit	\$29.95
CHR	Matching Case & Knob Set for HR Receivers	\$14.95



QRP Linear Amplifiers

Cut through the QRM with 20 Watts!

- Works great with Ramsey QRP rigs or any other 1–2 watt transmitter
- Built-in T/R relay automatically switches between receive and transmit
- Run on 12 volts DC at 2 to 4 amps current, ideal for field operation
- Operates all modes; CW,SSB or AM



Need a little extra boost for your QRP rig? This nifty little amplifier may be all you need. Believe it or not 20 watts is only 7 db

(about one S unit!) less power than a full sized commercial transceiver. These compact amplifiers are easily driven by any of our QRP transmitters or any other unit in the 1/2–2 watt range. Advanced power MOSFETs are used for the utmost in efficiency and purity,

while a multistage low pass filter is used to assure a clean signal output. Power required is only 12 VDC at 2 to 4 amps, depending upon power output. Complete step-by-step instructions are provided which makes building the kit a breeze. The amplifier works well for all modes: CW, SSB and AM. Select the band of interest to you and don't forget our custom matching case set for a complete station look.

QAMP20	20 Meter QRP Amplifier Kit	\$49.95
QAMP30	30 Meter QRP Amplifier Kit	\$49.95
QAMP40	40 Meter QRP Amplifier Kit	\$49.95
CQAMP	Matching Case & Knob Set for HR Receivers	\$14.95

20 Meter SSB/CW Transceiver

Great Kit, Great Features, Great Price!

- Direct Digital Synthesis with a pair of VFO's and memory for accurate, stable operation even when hopping around
- Dual selectable AGC, plus one button WWV reception
- Digital readout of receiver RIT
- Includes hand mike with remote up/down tuning buttons
- Built-in CW Keyer with LED digital display of speed!

Wired & Tested



Build this handy, go anywhere rig & put some fun into ham radio

Features — where do we start? How about the DDS (Direct Signal Synthesis) synthesizer that runs in 10 Hz steps with exceptionally low phase noise for fantastic weak signal reception. Or how about the built-in iambic CW keyer that has a digital readout of your CW speed. It's so smart it even checks the CW key jack to determine what type of key you're using!

A pair of VFOs — with memory of course, to instantly hop around the band and a digital readout receiver RIT control so you know exactly where you are at all times. Dual selectable AGC allows you to tune around and not miss anything, while a convenient dial fast control simplifies rapid frequency changes. Instant, one-touch WWV reception lets you get a quick check of reception conditions and calibration. 10 watt RF output (that's only 1½ units below a 100 watt rig!) can be tuned down for QRP operation.

The sealed membrane front panel resists dirt and water, making the SX20 ideal for field use. Included with the SX20 is the hand mike with handy UP/DOWN buttons for remote tuning while driving-or biking-or boating! In the shack, the SX20 is compatible with all ICOM style desk microphones.

CW buffs will appreciate the optional CW filter with DIP switch selection of bandwidth, from 2400 Hz all the way down to a sharp 100 Hz. Available in both fully assembled and fun to build kit form, The SX20 might become your favorite rig. Runs on 12 VDC supply (not included), 5 Amp fused power line cable included. Case size 9½" w x 3¾" h x 9" d.

SX20	20 Meter SSB/CW Transceiver Kit	\$199.95
SX20WT	Factory Assembled & Tested SX20	\$369.95
SXCWNWT	Factory Assembled & Tested Digital CW Filter for SX20	\$49.95

Two Meter Power Amp

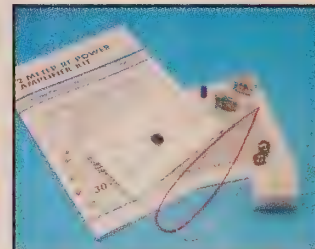
4 Watts in, 40 Watts out!

- 10 times power gain!
- Up to 40W output!

The PA1 will give you a ten times power gain, 2 watts in for 20 watts out, 4 in for 40 out. Power required is 12 to 14 volts DC at 5 amps with 40 watts out. You provide the power supply,

PA1	Two Meter Power Amplifier Kit	\$34.95
RFS1	RF Sensed TX/RX Relay Kit	\$14.95
PR10	Two Meter Preamp Kit	\$17.95

enclosure/heatsink, RF and DC connectors. This kit has been written up in the ham magazines many times throughout the years most recently by N8KDD in '73 Magazine. Add the optional T/R switch and receiver preamp for added performance!



Mini VHF Receiver

Low cost...easy to build!

- Tunes any 5 MHz portion of selected receiver band
- Excellent performance, less than 1 µV sensitivity
- True Superhet Receiver with sharp ceramic IF filters
- Front panel volume, squelch, and tuning controls

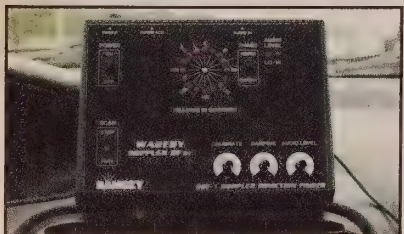
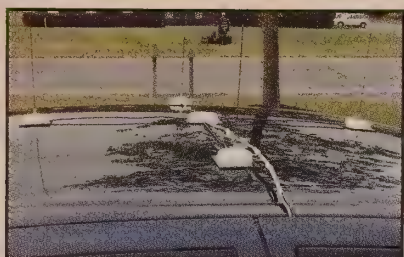
You'll get a lot for your money with one of these dual-conversion FM receivers. In one evening you can be snooping around the band monitoring the local repeater, checking out new bands, or even monitoring local police and businesses. There are no short cuts in this design. A true Superhet receiver with tight ceramic IF filters provide sensitivity equal to full size monitor receivers or scanners. Schools, scout troops, clubs, and hobbyists use these receivers for teaching, monitoring, and just plain building enjoyment. All four receivers can be tuned outside of the intended amateur bands. For example the

FR146 two meter receiver will tune any 5 MHz segment from 130 to 180 MHz.

Choose your band and enjoy FM repeater and simplex monitoring on a budget! Listen in on exciting 10 Meter international FM action or fascinating 6 meter sporadic E openings. For a professional finished look, our matching case and knob set can't be beat. Kit includes detailed step-by-step manual that carefully guides you to a finished working radio. Runs on 9V Battery. Optional case: 5" w x 5¼" d x 1½" h.



FR146	2 Meter Receiver Kit	\$34.95
FR6	6 Meter Receiver Kit	\$34.95
FR10	10 Meter Receiver Kit	\$34.95
FR220	220 Meter Receiver Kit	\$34.95
CFR	Matching Case & Knob Set for All Receiver Kits Above	\$14.95



Doppler Direction Finder

Now you can find that transmitter in a snap!



Wired & Tested

- Track down jammers and hidden transmitters with ease!
- Elegant and cost effective design thanks to WA2EBY!
Featured in May/June 1999 QST Magazine
- Solid state antenna switching for "rock solid" performance
- Convenient LED 22.5 degree bearing indicator
- Audio level indicator for trouble free operation
- Adjustable damping rate, phase inversion, scan enable/disable
- Complete with home brew "magmount" antennas and cable, designed for quick setup and operation
- Utilizes latest high speed CMOS technology for signal conditioning and audio processing!
- Complete and informative instructions guide you to a kit that works the first time, every time!
- Includes case, power cable, mag antenna kit, and cables!

Radio direction finding is a fascinating hobby that has been becoming more and more popular in today's portable world. With intentional jammers and other unknown transmitters becoming more frequent, Doppler DF locators have become the rage, with a display that gives you a direct bearing on the location of the transmitter. Pretty neat trick considering you don't need multiple separate receivers at different locations to triangulate on the mystery transmitter.

Up to now, directional antennas with a good front to back ratio (such as Yagi's or Quads) were required. However, it's impractical to mount a Yagi or Quad to the roof of your car for mobile applications. A much more practical approach to the mobile application is to use four 1/4 Wave antennas and the Doppler principle.

The kit includes the display unit, matching case, and all the parts necessary to build your four point, 5 piece magnetic antenna assembly. Whips can be cut and optimized for any frequency from 130-1000 MHz. The unit can locate AM, FM, or CW transmitters.

Operates on 12 VDC, and includes power plug for connection into your vehicle or portable power supply. Easy to hook up to any FM receiver. Requires only a connection to your receiver's speaker jack and radio's antenna.

DDF1	Doppler Direction Finder Kit, with Case, Power Cable, and Magnetic Antenna Kit	\$149.95
DDF1WT	Factory Assembled & Tested DDF1 with Case, Power Cable, and Magnetic Antenna Kit	\$249.95



SlyFox Fox Hunt Transmitter

Put some fun into your club events with the SlyFox!

- 2 Meter programmable transmitter
- 5W output

- Difficulty level programming!



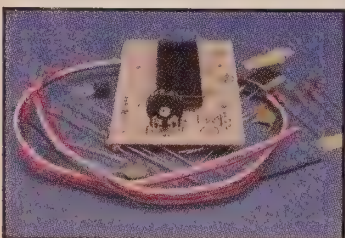
Foxhunting is a craze sweeping across the country. US hams are now realizing what European hams have known for a decade — foxhunting is FUN! Here's a brief outline for those unfamiliar with foxhunting:

One member of a group or club carefully and slyly (like a fox!) hides a small transmitter and the others in the group try and find it. Simple you might say? Well, depending upon the skill level of the participants, the fox may be very sly! Some foxes will transmit only a few seconds per hour or vary power at different times. Some clever operators place the fox in an area where antenna reflections will cause false readings, and some downright devious folks will actually mount the fox on a rotating platform! Foxhunting can appeal to all levels of operator skill and can involve whole clubs or groups of clubs in an enjoyable day of hunting.

To help clubs get on the foxhunt bandwagon, Ramsey offers our SlyFox transmitter kit. The SlyFox is a 5 watt (adjustable) 2 meter FM transmitter that is microprocessor controlled with a preset and programmable transmission bank. Frequency is crystal controlled — 146.52 MHz crystal included — using a times nine frequency multiplier. Change the frequency by replacing the crystal.

Select the difficulty level for your hunt, and the SlyFox will adjust its transmission characteristics (duty cycle and power) to match your group's skill. As your group becomes more proficient, the SlyFox can be set for more difficult levels, and even custom programmed by you for features you feel are especially misleading to your "expert" foxhunters! The transmitter is programmed to ID in CW, or add our optional SlyVoice IDer ("Ha-Ha, you can't find me!"). Power requirement is 12 VDC. Join the fun!

FHT1	SlyFox Fox Hunt Transmitter Kit	\$89.95
CFHT	Matching Case & Knob Set for FHT1	\$29.95
FHID1	SlyVoice Voice ID Option Kit	\$29.95



Subaudible Encoder/Decoder

Quartz accuracy...no tuning

- Encodes/Decodes all 39 standard CTCSS/PL® tones
- Uses digital frequency generation and detection — for no drift!

Add the QT1 to any of your FM rigs. The QuikTone PL® tone generator encodes and decodes any of the 39 standard CTCSS tones.

Utilizing single chip CMOS technology, and built-in digital audio filtering the QT1 provides quartz crystal accuracy, with no tuning or drift. Jumpers allow easy frequency programming. Runs on 5 to 15 volts DC at very low current and is a small 2 x 1 1/2 inch size. Optional case size: 5" w x 1 1/2" h x 5 1/4" d.

QT1	CTCSS Encoder/Decoder Kit	\$39.95
CQT	Matching Case & Knob Set for QT1	\$14.95
QT1WT	Factory Assembled & Tested QT1	\$69.95

Strike it rich!!!

Treasure hunting is a fast growing hobby, one that lots of our customers are getting in to. Ramsey has become known for carrying "technical stuff" that you don't find everywhere, and we've had lots of requests for really good metal detectors. We thought about making our own, but we also looked at the commercial market, and decided to bring you the best – the Bounty Hunter® line.

What do you hunt for? In addition to the more obvious activities like searching for buried treasure or historical relics, metal detectors are also great for finding buried pipes and cables, or your keys at the beach. If you get good, there are clubs and competitive hunts – lots of fun. And of course, you'll have more fun using top quality equipment!

A Metal Detecting Primer

A metal detector has a transmitter coil and a receiver coil. A high frequency AC current in the transmit coil will induce a current in a conductive object in its proximity (buried treasure). A phase shift occurs

in the induced current, the shift varies with the size and conductivity of the object. The receive coil senses the shift and the signal strength, and alerts the operator through audio tone or on a display.

As you spend more for a detector, you get increased power, and sensitivity. You also get microprocessor power which can help distinguish trash from valuables, and a display with more information. Of course there is an element of skill here too. An experienced operator can pinpoint location and depth, and distinguish a nickel from a quarter from a bottle cap!



The Fast Tracker

NEW!

Entry level detector

This reasonably priced detector has a 7" search coil, and advanced circuitry. It has what is known as dual-tone audio discrimination to selectively identify different materials, as well as an all-metals mode (responds to everything). It has a built in speaker and headphone jack. Like all Bounty hunter models, it has a light-weight well balanced s-rod handle with stand, an adjustable coil angle, and is covered by a 5 year warranty.

FTMD

The Fast Tracker



\$124.95

The Tracker IV

NEW!

A step up, the Tracker IV has a fully submersible 8" coil (think beach) plus an interchangeable 4" coil for pinpoint searching. In addition to the two-tone and all metals modes, the IV also has a "full discrimination" mode which automatically rejects iron and most trash. An intensity meter helps you pinpoint the location of your find.

T4MD

The Tracker IV



\$159.95

Quick Draw II

NEW!

So sensitive it can find coins 10" deep!

Also equipped with a waterproof search coil, the Quickdraw II adds an advanced computer circuit for great discrimination. You can tune out small nails and trash while sensing larger relics and collectibles. A "notch" detector allows you to set a narrow response range for seeking specific target types. The LCD readout indicates both target ID and depth.

QD2MD

Quick Draw II



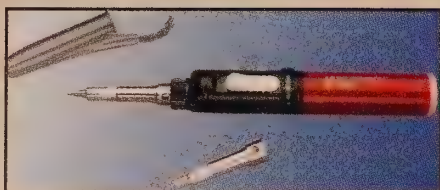
\$279.95

Micro Torches & Cordless Soldering Irons

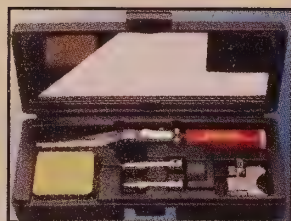


You know we're always on the lookout for stuff our customers might like. And you know, most of our employees are hobbyists just like you. If our employees reaction is any indication, you're going to love these! Everyone here is buying one!

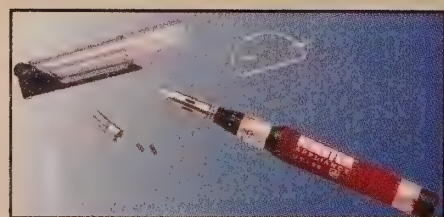
The BSI30 microtorch is hand held, self igniting, and generates temperature to 2500°F — hot enough to solder or cut, plus it's windproof and capable of lighting a cigar on the golf course! Fuel is in a refillable fuel cell (included) which looks like a lighter but it's not. Pick up extra fuel cells if you want to be sure to never run out!



The BSI20 is our entry level torch/solder iron, supplied with a solder tip, heat tip, and torch tip. As a torch, it can heat up to 2400°C, as a soldering iron it's equivalent to a 20 to 80 watt electrical iron. You start it with a flint lighter built into the cap and runs for 60 minutes on a single filling.



The BSI20 is also available in a kit which includes the unit, solder tip, heat tip, 60/40 solder, sponge, and tool rest, all packed in a rugged plastic case. The BSI20 is also available in a kit which includes the unit, solder tip, heat tip, 60/40 solder, sponge, and tool rest, all packed in a rugged plastic case.



The BSI10 is our "deluxe" model, self igniting, with temperature adjustment. We offer it stand alone and as a kit. The basic unit is supplied with solder tip and heat tip, and a protective cap. The kit adds a hot knife tip, shrink attachment, cap, sponge, and stand, all packed in a nice plastic case.



Take note, the BSI10 and BSI20 are shipped empty so you'll need to add a can of fuel to your order.

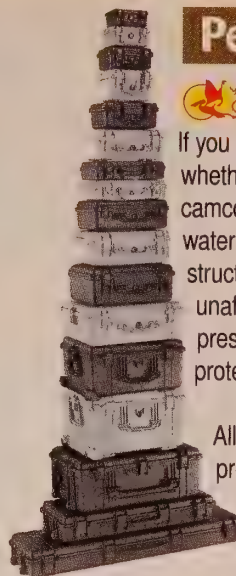
BSI10	Ultratorch Butane Soldering Iron	\$65.95
BSI10K	Ultratorch Butane Soldering Iron Kit	\$87.95
BSI11	Replacement Hot Knife Tip for BSI10	\$18.95
BSI12	Replacement 2.4 mm Chisel Solder Tip for BSI10	\$15.95
BSI20	Econotorch Butane Pocket Soldering Iron	\$28.95
BSI20K	Econotorch Butane Pocket Soldering Iron Kit	\$47.95
BSI21	Replacement Hot Knife Tip for BSI20	\$10.95
BSI22	Replacement 1mm Needle Soldering Tip for BSI20	\$10.95
BSI100	Butane Fuel, 145g, for BSI10 and BSI20	\$3.29
BSI101	Butane Fuel, 26g, for BSI10 and BSI20	\$2.59
BSI30	Microtorch Butane Torch	\$20.95
BSI103	Microtorch Butane Fuel Cell, Twin Pack	\$3.95

Pelican Cases

Built tough to last!

If you have anything you want to protect when you travel, whether it's a piece of Ramsey test equipment or your camcorder, you should invest in a Pelican Case! They are watertight to 30 feet and unbreakable. An incredible light structural foam resin shell always looks new, and is unaffected by dents, scratches or corrosion. Inside, prescored "Pick N Pluck" foam or padded dividers protect even the most sensitive equipment.

All Pelican cases below are watertight, airtight, dust-proof, crushproof, and built Pelican tough! Equipped with foam for total equipment protection. Features include atmospheric pressure purge valve.



P1120 Pelican Case	\$29.95
Inside: 7 ¹ / ₈ "l x 4 ⁷ / ₈ "w x 3"d	
Outside: 8 ¹ / ₄ "l x 6 ¹ / ₈ "w x 3 ¹ / ₈ "d	
Color: Black	
Pick N Pluck Foam Inserts	
O-Ring Seal	
Atmospheric Pressure Purge Valve	



P1200 Pelican Case	\$49.95
Inside: 9 ¹ / ₈ "l x 7 ¹ / ₈ "w x 4 ¹ / ₈ "d	
Outside: 10 ⁵ / ₈ "l x 9 ³ / ₄ "w x 4 ¹⁵ / ₁₆ "d	
Color: Black	
Pick N Pluck Foam Inserts	
O-Ring Seal	
Atmospheric Pressure Purge Valve	



P1300 Pelican Case	\$59.95
Inside: 9 ¹ / ₈ "l x 7 ¹ / ₈ "w x 6 ¹ / ₄ "d	
Outside: 10 ⁵ / ₈ "l x 9 ³ / ₄ "w x 7"d	
Color: Black	
Pick N Pluck Foam Inserts	
O-Ring Seal	
Atmospheric Pressure Purge Valve	



P1400 Pelican Case	\$89.95
Inside: 12"l x 9 ¹ / ₈ "w x 5 ¹ / ₈ "d	
Outside: 13 ³ / ₈ "l x 11 ¹¹ / ₁₆ "w x 6 ¹ / ₈ "d	
Color: Black	
Pick N Pluck Foam Inserts	
O-Ring Seal	
Atmospheric Pressure Purge Valve	



P1450 Pelican Case	\$119.95
Inside: 14 ¹⁵ / ₁₆ "l x 10 ¹ / ₂ "w x 6 ¹ / ₈ "d	
Outside: 16 ¹ / ₈ "l x 13"w x 6 ¹ / ₈ "d	
Color: Black	
Pick N Pluck Foam Inserts	
O-Ring Seal	
Atmospheric Pressure Purge Valve	

Technician's Tool Kit

The perfect kit...at a great price!

- Desolder Pump
- 25W Solder Iron
- Long Nose Pliers
- Diagonal Cutters
- Adjustable Wrench
- Clamping tweezers
- Test Light Screwdriver
- Solder Stand/Sponge
- Heat Sink
- 3 Phillips Drivers
- 3 Slotted Drivers
- 3 Piece Solder Aid Kit
- 9 Piece Socket Set
- Universal Handle with 5 Slotted Bits, 3 Phillips Bits, 3 Hex Bits & 2 Torx Bits



Our most complete tool kit for the technician, engineer or hobbyist. Packed neatly in the zipper case, the 43 piece set contains virtually everything needed. Includes such items as a heavy duty desolder tool, torx drivers, socket sets and even a test light screwdriver. Available at an unbelievable price.

TK405 Technician's Tool Kit

\$47.95

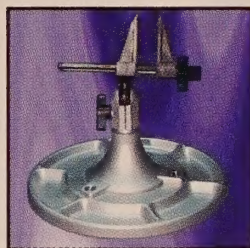
Assembly & Repair Aids

Third hand

Trying to solder and unsolder small components on small boards can be a challenge for even the most experienced. Here's a gem of a handy vise that is very sturdy and has the flexibility for holding boards at virtually any angle. Includes 2 7/8" jaws and a large base/parts tray with lockable flex joints.

RTS13 Panavise with Jaws and Base

\$39.95



Magnifier Headband

Working with small parts can be painstaking and costly (if mistakes are made.) With the Optivisor Headband your solution is readily available. Flip down the headband and you're into a magnified stereo view of the smallest parts ever used in electronics. Flip-up the headband and the world returns.

RTS26 Optivisor Magnifier Headband

\$28.95



Magnifying Lamp

Magnifying lamps have long been the assistant for electronics assemblers. Here's a real nice one that uses an incandescent bulb (not included) so it is safe to use in any environment, including RF screen rooms.

RTS28 Bench Mounted Magnifying Lamp

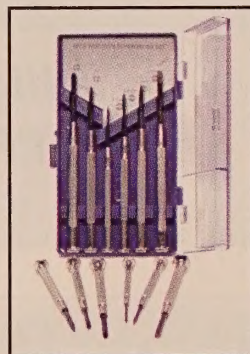
\$39.95



Precision Screwdriver Set

A complete set at an incomplete price!

Here's a great price on a handy set of nice mini screwdrivers. You get two Phillips drivers and four straight blade screwdrivers from 1.4 mm to 3 mm. Great for all those new small screws that hold together CD players, hand-helds, walkmans and any other small device — hey, did I mention eyeglasses? Geez, you'll pay almost our price for those eyeglass repair screwdrivers you see at the drug store, but this neat little kit has six tools! At this price, pick up a couple to give away to friends, you'll look like a good guy for peanuts!



MSS1 Miniature Screwdriver Set

\$2.95

Portable Tool Kit

Just the basics...and save!

- Needle Nose Pliers
- 25W Solder Iron
- Diagonal Cutter
- #1 Phillips Screwdriver
- 1/4" Slotted Screwdriver
- Premium Wire Cutter

Included are all the basic tools for electronics. These basic tools are neatly packed in a roll-up pouch for maximum economy. You may also choose the hard case which has slots for the addition of 20 extra tools beyond those listed above.

TK105 Tool Kit with Roll-Up Pouch

\$16.95

TK105M Tool Kit with Molded Case

\$19.95



Pro Soldering Station

Temperature Controlled!

- Made in U.S. by Weller
- Variable Temperature
- Easy Replacement

Here's the ideal soldering station for building your Ramsey kit — but it'll work on any soldering job, big or small! Adjustable temperature lets you match the iron to the work for fast reliable connections and what a pleasure knowing you'll never overheat a small circuit trace. If you've never used a good quality soldering station, you owe it to yourself to see just what a pleasure it is to use good equipment! This is the famous American Made, Weller® brand, a name known for years as America's best!



WLC100 Professional Soldering Station

\$39.95

ST2 3/32" Screwdriver Tip

\$5.95

ST3 1/8" Screwdriver Tip

\$5.95

ST4 3/16" Screwdriver Tip

\$5.95

ST6 1/32" Screwdriver Tip

\$5.95

Solder

Save a lot of headaches

Build your new kit with quality solder. Rosin core solder (60/40) for fine electronic applications. Non-corrosive, non-conductive rosin. One pound spool.



RTS12 Solder

\$9.50

Solder Sucker

Significantly reduces rework/repair time and minimizes damage to circuit board and surrounding components. Aluminum barrel with threaded tip. One hand loading for fast cycle time and low hand strain.

SS01 Solder Sucker

\$4.95



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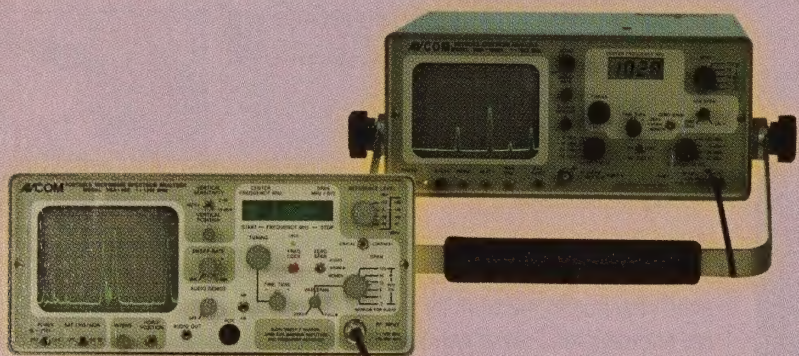
THERE'S A NEW NAME IN RF TEST & MEASUREMENT

AVCOM-RAMSEY TECHNOLOGIES

Ramsey Electronics has merged with Avcom of Virginia to form AVCOM-RAMSEY TECHNOLOGIES.

For many years, Ramsey Electronics has not only manufactured and sold electronic hobby kits, but also wireless test equipment including communication service monitors, pager test sets, signal generators, and RF shielded enclosures. Avcom has been a manufacturer of spectrum analyzers and related microwave accessories and components.

Combined we bring you our expanded line of RF test equipment under the Avcom and Ramsey brand names. We combine performance and value for the industrial, commercial, and educational RF test bench.



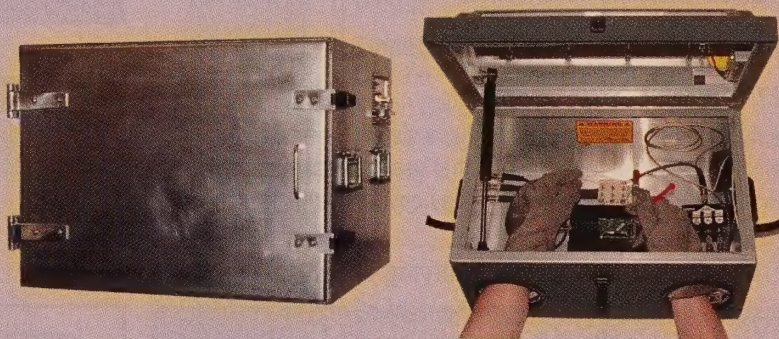
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Overseas customers – We will determine the best method and cost for your location, and will confirm to you before shipment.

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Manual Preview – Looking at a kit and want to review it more closely? Our manual preview policy lets you purchase most of our manuals for \$5.00 (a few are more). Purchase price of the manual will be credited against your future associated kit purchase. You can also download most manuals at no charge from our website, www.ramseykits.com.

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Our support staff is here to answer technical questions that arise as you build or use your kit. E-mail us at: techsupport@ramseyelectronics.com. We promise we will get back to you promptly! If you're really stuck,

call our tech support line at 716-924-4560 (sorry, we cannot take tech support calls on our 800 lines).

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GOT A KIT IDEA??? WE'D LIKE TO HEAR FROM YOU!

Submit your hobby kit idea on our
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If we develop your idea, and you were the first to submit it (all submissions are time and date stamped), we'll give you \$200 in credit towards the purchase of Ramsey kits!



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LFL6CW	Cool White Flash LED, 6 LEDs	\$45.95
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Great Price!

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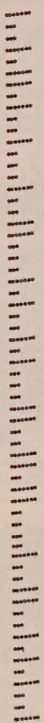
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